

# THE SCHOOL JOURNAL.

NEW YORK AND CHICAGO.

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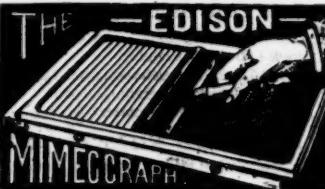
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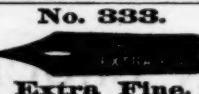
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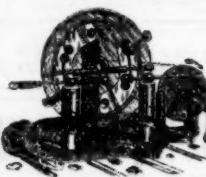
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THE school year opens very auspiciously. Our plan for the year will be a broader one; will mark out the great lines of advancement, and these must be laid deep and firm in the "science of man's development." This is the real definition of education. In carrying forward this work, we wish the readers of the JOURNAL to note the general plan:

1. On the first two pages are the opinions of the editors.
2. The next two are devoted to pedagogical ideas, theoretical, and practical.
3. The next two are devoted to school-room work.
  - (1) Language and Things, for one week.
  - (2) Earth and Numbers " "
  - (3) Self and People " "
  - (4) Doing and Ethics, " "
- The subjects will follow in the above order through the four weeks of the month.
4. The next page is supplementary, and consists of materials the apt teacher will find most useful.
5. The next two pages consist of letters and educational notes and news.
6. The reviews of books fill the last page.

"WHO are these in bright array, this innumerable throng?" were the words that rose in voluntarily, as the tide of children were seen on Monday last, surging toward the school-houses this great metropolis has furnished. All had seemingly taken pains to dress themselves neatly; there was an aspect of expectancy, as of some important happening. They moved joyously, but at the same time with considerable dignity. Children that had been seen only a few days before racing carelessly up and down the streets, now showed another side of their characters. They were impressed by the importance of the coming event—the opening to them of the schools.

One who carefully studies this thing will see that the impression on the pupils of the schools is not the arithmetic impression, or the grammar impression—it is the growth of character. This is what the "new education" would make the especial point, and use the subject of study to gain. And it is a cheering thing to see this evidence of good teaching in the very streets. It was an old New England maxim that "people will measure you by your behavior;" and so, with a narrow object in view, the same end was sought; for behavior indicates culture or character. The teacher is known outside of the school-room.

As this tide of young humanity surges towards the school-doors, the hearts of every good man and woman blesses it. "God bless you," we cry, as we see them so neat and so trim, so full of hope, so ready to attack the difficulties the master may lay before them, so ready to sit still and banish the busy world without. And we believe that God has a special blessing for the children, gathered in our schools. "God bless the teachers too," we say, for they need a greater wisdom than that they get from their books. "Come with me," said Jesus, "and I will make you fishers of men," and this is what the teacher needs to have taught him—to be able to catch and hold children. Teachers, yours is a divine art. Oh, believe in it, practice it as a mission, not as a trade! Believe you are sent by the Creator, and act as His agents in your school-room day by day.

IT has been no uncommon thing in the past to find men as principals of schools in our large cities, who did not hesitate to say, "Why should I want to know anything about education? I am secure here so long as I see that the classes are heard according to the course of study." But this is giving way, and the feeling such words indicate will soon be a thing of the past; there are many men of this class, that are beginning to look up Pestalozzi. One of them lately remarked, "I had no idea Pestalozzi was such a genius; I thought he was a very common man. Why, our best methods are founded on his."

The movement of these men will be quite influential; their assistants will catch their spirit, and they, too, will become students of education, and thus the whole line will advance.

AN advance in our conception of the attitude the teacher should maintain, is apparent, if we look back ten years; the beginnings of a movement that is to assume vast dimensions as time goes on have been made. That the teacher of children needs special attainments is being recognized; it has hitherto been considered that a small stock of general knowledge, and a large amount of patience were enough. But the child is not so easily comprehended; profound science is seemingly exhausted in his make up. To understand him, to operate along with him in his development, there must be a conception of the plan on which he is built, and of the world which he is built into.

Education is therefore a scientific matter, with principles underlying its methods.

True, in the past, and even in the present, the practices of our school-rooms are empirical; often a matter of tradition. But this cannot last; the age is scientific in its tendencies; it will have education placed on a broader basis. And it may be said that there is a spirit entering the teachers' ranks, that has never before been apparent. Teachers are seen to assemble, to investigate their methods, to penetrate the ideas of the great teachers of the past, and in general exhibit an interest never witnessed before.

It is apparent that we are at the beginning of a new era, the era of scientific education, and that the result will be most beneficial for mankind. Better conceptions of education will be taken; broader work will be planned, and human activities better understood. This journal has aimed during the nineteen years of its existence to place teaching on its rightful basis, and it hails with delight the signs of advancement that appear all along the line.

WE are certainly nearing the stage of scientific education, if we are not already upon it. By this is meant that the procedure of the teacher is based upon the laws of mental development, and is not an arbitrary process, either handed down from antiquity, or hit upon by chance, or copied from some one else who has used both sources. This is the result of the close study by many of our prominent teachers during the past ten years. The discussion, incited mainly by Colonel Parker, has led many teachers to investigate the grounds of their practice. They feel the need of having solid ground under their feet.

The ignorance of the so-called teacher has been a source of merriment at the village dry-goods store for many years, and, for that matter, it will be for many years to come, but at last the beginning of another stage appears. The reading circles began a process of improvement; the summer schools have kept the ball rolling, and it is safe to say that this winter will witness fully half of the body of teachers, aiming steadily at higher stages of knowledge. We ought not to forget to pay tribute to the Chautauqua movement; undoubtedly as many as twenty-five thousand have joined the various associations that exist in several states; and while these have not been arranged specifically for teachers, they have contributed to general advancement.

All these things point out that the agitation begun in the JOURNAL in 1874, when every one declared it a waste of time and effort, has been productive of enormous results; the work of reform, however, has only begun. Let us push it forward.

THE Pennsylvania summer school of methods follows a plan that has been long urged in the JOURNAL for a teachers' institute, that of having a "Model School," taught by a skilful teacher, which should show good teaching concretely. In that school, held for three weeks (the institute was divided into four classes); each class observed teaching by Miss Blanchard for forty minutes each day. Now is this impossible in our New York state institutes? We think not, and ask Supt. Draper's attention to this point. We would suggest to him also to divide our institute into classes: (1) Third grade certificates. (2) Second do. (3) First do. (4) State do. Then let them observe a good teacher at work, and discuss teaching as something seen and not talked about. We think, this severing of the classes would stimulate the lower to "go up higher." We would like to have our corps of excellent institute conductors, carry on an institute in this way.

## A BOY'S WORST ENEMY.

What is it? The saloon. No. The gambling table. No. Temptations to swear, to steal, to lie, to be disobedient to parents. None of these. What is it? Books. Books like the following, as catalogued by Dr. Gladden:

"Sunflower Sam of Shasta, or Deadwood Dick, Jr.'s Full Hand—a Tale of You Bet;" "The Double Daggers, or Deadwood Dick's Defiance;" "Deadwood Dick's Double, or the Ghost of Gorgon's Gulch;" "Captain Crackshot, the Great Brigand, or Gypsy Jack from Jimtown;" "Bonanza Bill, Miner; or Madame Mystery, the French Forger;" "The Boy Runaway, or the Buccaneer of the Bay;" "The Boy Bedouins, or the Brothers of the Plumed Lance;" "The Black Band of New York;" "Bob the Boy Detective, or the Mystery of the Missing Head."

Our children will read, and it is our duty to see to it that they read what is the best, that they acquire a taste for what is good. Dr. Gladden states that he has recently read one of the serials of a popular periodical, taken in a certain school, and this is his outline:

"It proceeds to tell how a company of boys formed a secret society for various mischievous operations, and finally ran away and came to grief, of course: but the details of their mischief are worked out with great minuteness, and the practice of the young rascals is sure to make a stronger impression on the reader's mind, than the preaching of the author. Very many of the readers will be thinking all the while what stumps these boys were to have been circumvented and caught, how the mischief might have been better managed, and the effect of it all will be very nearly as bad as if there were no such pious purposes as the author professes. This kind of teaching generally has the effect of an anti-climax; it amounts to showing the boys how nice it would be to be naughty provided they did not get caught at it!"

Much has been said in these pages concerning the duty of parents to supervise the books pupils read. Perhaps some one asks, "What can I do?" We answer this: Select the most interesting book that is good, and make it a subject of conversation, excite an interest in the story, lead the scholars to say, "Can I borrow that book of you?" or "Where can I buy that book?" When once an *interest* is awakened in what is good, it is not likely to die. We cannot counteract a bad taste by saying as one teacher did to his large school: "I wish to warn you against reading, 'Dick the out-law.' It is a bad book." The book-seller said that, one by one, nearly all the older pupils of that school asked him to send for it. He did so, and sold at once over fifty copies. The teacher meant well enough, but he was ignorant of human nature. An ounce of honey will attract more flies than a barrel of vinegar. Telling pupils what not to do, is bad; but telling them what to look forward to with pleasure, and giving them an ambition to do something good, is excellent.

## JOHNS HOPKINS UNIVERSITY.

It seems as though this splendid university will soon become an object of charity, for the three million endowment seems to be melting away like snow before the rays of the summer sun. If this calamity does happen, the cause of higher education will suffer a tremendous loss. President Gilman has proved himself to be an executive officer of rare ability, and it will be a calamity if he is obliged to resign, and suffer the institution, now so highly esteemed, to become a third rate college. It is to be hoped that Baltimore will stir itself as she has never stirred herself before, and make good the millions that Johns Hopkins left. He had the firmest faith in the business integrity and ability of the elder Garrett, but he died, and his son, who succeeded him, went insane. The present financial crisis has been looked forward to as inevitable for several years, but since it has come, its blow is none the less severe because expected. We sincerely hope that the future has brighter days for this magnificent school, than even its best friends could dare to hope for.

## THE AVERAGE YOUNG MAN.

The average young man has always been the butt of ridicule. The English *Standard* describes him as found over the ocean, in the following manner: "The young man of the period is sunk in self-indulgent sloth; he prefers to pay to look on at games played for him by semi-professionals. Instead of playing cricket, he sits, protected by awnings from rain and sun, cigar in hand, iced drink at elbow, gazing at the toils of others. Clad in gorgeous array, he loafes on the edges of lochs and lawns, or in the balconies of hotels, instead of rowing. When in a very energetic mood, he plays a set or two at bat-ball, and, but for the fact that kneeling might spoil his trousers, would doubtless take an interest in marbles. Manly games know him not, and the fatigues and hardships of volunteering he shudders at." We hardly feel

like knocking his American cousin quite as hard, but as we see him at the fashionable resorts, and on Broadway, we cannot speak of him in glowing terms. He is as ignorant of the political, religious, and literary questions that are stirring our country, as a Hottentot. He knows enough to imitate "English, you know," but he doesn't know that what he thinks is English, isn't English at all, but a miserable American counterfeit of it. The truth is, that "the average young man" is sadly in need of just such an education as manual training would give him. If he had been taught to work with his hands at some honest trade, he would now think less of perfumery and kid gloves, and more of honest labor as a means of getting a living. There is nothing like manual training to cure dudism.

## OUR TEXT-BOOKS.

In no country are school text-books so good as in the United States. It is not worth our while to discuss what forces have made them excellent, it is enough to know that they are excellent, and that the demand for them has been great. On account of this demand, certain politicians, having an eye to personal profit, have advocated that the various states should go into the work of text-book publishing, ostensibly for the purpose of economy, but in reality in the interests of their own pockets. In the states that have undertaken this work, as California, Minnesota, and Indiana, almost the sole argument urged is cheapness. Now there is no doubt that our text-books could be very much cheaper. Hundreds of salable things could be reduced in price, and the dealers in them realize greater profits than they now do. Make flour half clay, mix corn meal with half its bulk of finely-powdered wood dust, and the people would pay much less for these articles than they now do. But would this cheapening process be economy? Such a diet would seriously affect the health of the people, cause an enormous waste of strength, loss of time, and increase of doctors' bills. Would such adulterations be economy? Evidently they would be most wasteful as well as most criminal. Let us apply this cheapening process to other literary productions; the *Century*, for example. Suppose a California politician should say, "A large number of the *Century* magazine is taken in this state, and I am convinced that we are paying too much for it." He makes an estimate of the numbers sold, and shows that a dollar saved on each number would keep within the state many thousands of dollars during a year. He succeeds in getting the state to prohibit the sale of the *New York Century*, and publish a *Pacific Century* of its own, for a much less sum than its Eastern rival could be bought for. Now what would be the result? Cheapness, but inferiority; a lowering of the public taste, a distaste for the highest style of art, and a general deterioration of the aesthetic and literary character of the people. California would suffer immensely. She couldn't afford to try the experiment. Some years ago she offered a golden bait to Starr King; why didn't she save her money and get a cheaper man? Now this argument applies to text-books. It is possible to make state text-books much cheaper than the publishers have been able to sell them for, but in cheapening them they are ruined. Text-book writing is an art, and artists are not picked up in every town. There are not five men in this world who have the geographical instinct to make an acceptable geography. There are a hundred thousand who can tell how it ought to be done, but not five persons who can do the work in an acceptable manner. Theoretical books are numerous, practical, paying ones, few. The competition between school book publishers insures excellence. To-day a certain state is forcing by law its children to use a text-book that will not sell anywhere else. A large school-book publishing firm spent forty thousand dollars in trying to make a certain series of books go, and they wouldn't go; they couldn't be made to go, and the firm lost its money. They are now for sale to some state that wants to go into the publishing business. Backed by state authority they can be made to sell, but at what a cost! There are not men of capacity to be found in any state, who can make a grammar to order. That is not the way grammars are made. Talent for eloquence, poetry, and text-book making is born, not called up by the politician's magic wand. Money will buy many things, but never capacity, and if any work demands capacity it is writing text-books. State legislatures should let the business of publishing text-books alone. Our school-book publishing firms have done much for our schools, in the past, and they will do much more in the future. Their superb histories, matchless geogra-

phies, magnificent readers, and unexcelled arithmetics are marvels of educational talent and the printer's art. Our county is justly proud of these books. The fittest of them will survive. Text-book publishers know this, and they think twice before they put their money into new enterprises. So should a state.

## WHAT WILL BE FOUND THIS WEEK.

The careful reader of the JOURNAL will open this number (as he does every one) with an expectation of finding materials for his work, and ideas for his professional advancement. The suggestions on the first two pages pertain to things of to-day: the world as it is related to the teacher. Some of these utterances have an unusual weight this week. The sketch of Dr. Arnold cannot but interest the earnest teacher; it aims to show him as a teacher. The article on the Tonic Tol-fa refers to a great movement in progress. The page of school-room devices will be carefully read, we know. The School-Room has many notably practical articles. The supplementary page will furnish materials for many "talks with pupils"; it takes a column on the next page. Then follows a variety of matter, consisting mostly of questions proposed by subscribers. The educational notes will have an interest for the teacher who believes the world moves. Altogether there has been very much labor spent on these pages in fitting them for our readers who want a better paper this year than last, and they shall have it if it can be made.

## HEALTHY GYMNASTICS.

It is a mistaken notion that an exercise or two a day in gymnastics will suffice for physical training. If our children grow strong and well it will be because they obey the laws of health from the time they go to bed one day until they go to bed again. Nothing but good methods makes work successful, and these must be based upon good physiological foundations. There are laws of animal and vegetable growth that can never be violated with impunity. Among them are the following: Food must be good and adapted to the needs of the vegetable or animal it is to nourish. The muscles and bones of an animal should be under the perfect control of the nervous system. Healthy bodies promote healthy minds,—good blood, good thinking. Over pressure and hot-bed forcing always produces decay. In all natural processes, nature must be followed.

If these laws could be followed in all of our schools this year, much more progress would be made than ever before in the same length of time. Their application would lead the teachers to make children know the laws of health and follow them. In doing this the force of self-interest is the principal motive power. The feeling in the child, I want to be strong, well, and beautiful, and am determined to do everything within my power to become such, is a mighty propelling force.

## A GOOD NORMAL SCHOOL.

Chancellor MacVicar says, the best teacher is neither born nor made; he is one with good natural endowments, who has been properly trained. Here he points out the functions of a normal school:

1. To select those who may be trained.
2. To supply appliances and conditions, to acquire a knowledge pertaining to a symmetrical development of both mind and body.

## 3. To expound the theory and art of teaching.

Here he points out that no theory should be so pressed that all the pupils come out alike. There should be the freest exercise of the inventive power of the individual, and even certain forms of eccentricity should be tolerated.

The chancellor takes up the question, whether normal schools should give instruction in the subjects of study, or be professional, and inclines to the former view. Here we differ with him, if the student can get a knowledge of these subjects elsewhere. There was a time when the normal school was obliged to give academic instruction; and it is yet. There are very few really thorough (to use the common expression) high schools that teach reasons and not facts merely. But in theory the normal school should be professional.

The essence of a true teaching ability is the power to transfer to the mind of the pupil, and to fix permanently, the exact consciousness existing in the mind of the teacher. The teacher who possesses this ability will make little account of manipulation and mechanical processes.

## EMINENT EDUCATORS.

DR. ARNOLD.

Thomas Arnold, of Rugby, ranks among the great practical teachers of modern times. Suddenly called from a life of obscurity to the head mastership of a great English public school, he rose at once to a towering influence, far above the situation, and became England's typical school-master. Arnold accomplished much for religion, literature, education, and general progress. He has left behind him, in his work and its traditions, an indefinite but growing force, which is known as the *Arnold influence*. Not to understand this is to be outside the great educational movement of this century.

Thomas Arnold was born at Cowes, in the Isle of Wight, in 1795. He was educated chiefly at Winchester and Oxford, where, in his twentieth year, he was elected Fellow of Oriel, and gained the Chancellor's Prize for the best Latin essay. Four years later he took orders, married, settled down at Laleham, near Staines, and occupied himself in teaching private pupils, and in a wide range of literary work. He remained ten years. In his school-boy days he appears before us as a kind of poetical dreamer or placid enthusiast; but at Laleham he became an intense realist, and found satisfaction only in the severest forms of application; Carlyle himself did not more earnestly believe in the gospel of work. During these ten years his industry was enormous. He read widely and deeply in the field of Greek scholarship and Roman literature; formed very definite opinions on most political and social questions of the day; and, above all, studied the character of boys, and how to deal with it.

In 1828 he was elected head-master of Rugby. With apparent prosperity, the general tone of the school was low and irreligious. Discipline was loose. Those who loved learning had the opportunity to advance, but the great majority passed through in easy indifference, without gaining any perceptible good, either as regards power of habit, or extent of information. Besides there was a good deal of coarseness in the Rugby atmosphere. The older boys looked on bullying the younger as a right; and the younger ones were thus transformed in their turn into sneaks and cowards.

The reform of such a school was soon found to be a work of great difficulty. In addition to the opposition which he met within the institution, he was severely assailed by a large section of the press, as a dangerous innovator; several of his friends dropped his acquaintance, and denounced his conduct. But he went steadily toward his goal; he found he must purify and elevate public opinion, as well as the school. He determined to emancipate the boys from their slavish deference to the traditions of the school, and the current code of morals; and to turn out manly, brave, and thoughtful young men, well equipped for the realities of life. He was not content merely to keep down the more offensive forms of vice; on the contrary, he aimed all resources at the building up of character. Manly-minded, bold, and honest in all his actions, he despised the craven spirit that followed the authority of the multitude to do evil. He preferred moral to intellectual excellence, and though he always aimed at training up capable, intellectual men, he felt satisfied and happy, when he saw that his pupils would be likely to become manly Christian gentlemen. He preferred moral principle to gentlemanly conduct, and gentlemanly conduct to intellectual ability. He strove against the coarseness and selfishness of public school-boys, and the childish deference to opinion and prevailing fashions shown by grown-up men.

Arnold has rarely been surpassed in quickness and correctness of insight into the nature of boys. He took in a boy at a glance, penetrated through his slyest and most secret motions, analyzed his whole nature, and fixed upon all the seeds of hope in his constitution. He took active steps for stimulating the lazy, repressing the forward, cheering the diffident, and encouraging the weak. Nothing escaped his comprehensive insight. The boys feared his omniscience and stern treatment of meanness or cunning, and came to reverence one who was tender towards the weak, and stern towards the vicious.

He was very fully alive to the imperfection of a boy's nature; the idea of boyhood which he had gathered from keen observation and wide experience was not remarkably high; and he never applied to his pupils the same standard that he applied to grown-up people. To rules which lay beyond the sympathies of a well-trained boy, and to leading strings of all kinds he attached but little value. In his dealings, nothing was more marked

than the generous confidence that he placed in a boy's word, and the scathing scorn with which he treated untruthfulness. Whatever one of his pupils stated for fact, was accepted as such, without any further questioning.

The use of expulsion tended greatly to strengthen the opposition which he had to live down. It was urged that any pupil, however incorrigible, was a fit subject for a public school, and that the smooth government of such an institution should be possible without resort to removal. But Arnold, recognizing the vast evil which one incorrigible boy did to all the rest, saw the only effective remedy in his expulsion. It was not only for moral offences that a pupil was removed from Rugby. If the child was weak, or not likely from any cause to profit by the organization of the school, his removal was quietly counseled. The result was that when the youths, who were at first inclined to govern the establishment according to their own ideas, saw that they must conform to a wiser law, they became willing coadjutors of Arnold, and aided him greatly in all his efforts. When it was clearly understood that persistence in any mean or forbidden course would end in the disgrace of expulsion, the reform of the school became easy, and the maintenance of discipline light.

Every new pupil was immediately struck with the overpowering earnestness of the head-master, the transparency of all his motions, and his wish to benefit those who were under his care. Whatever he was engaged upon occupied his whole being. And this supreme earnestness of character affected the whole school like a fever. The masters copied his example; and the pupils strove to acquire his esteem through fidelity in application. Thus he came to be loved as few masters of large schools had ever been before. His pupils looked upon him as a trusty personal friend, whose sympathy could meet any calamity, whose advice would be most valuable in the hour of perplexity, whose help would be ready in time of need, and whose presence or word would stimulate new hopes and fresh energies. Arnold then was a great and powerful personality, quick in his perceptions and bearing down upon his work, with the great momentum of a high character. He had all the qualities of a great teacher—great acquirements, strong judgment, wide sympathy, eminent flexibility. It is a combination of qualities without which a teacher is a failure—a quick but searching glance for his class or audience, a fund of resource for emergency, an encouraging sympathy on every earnest effort, a keen scorn for pretense, an unsparing severity for the idle and slothful, an evident delight as new beauties appear in the lesson, and a zest for the new thoughts and feelings in his pupils.

In the actual business of teaching a class he showed command over the most productive methods. Arnold was very sparing of his words. He never lectured when he taught; he relied most upon his skill in the art of questioning to arouse and sustain thought; he spoke not for the purpose of explaining difficulties, but for that of suggesting explanations. He was the guide and fellow-worker of his pupils, but he aroused their self-reliance and action. He encouraged his class to read extensively, to gather facts from all quarters and collate them, and to cultivate the power of research. Then he tested their efforts, pointing out their weakness, suggesting how deficiencies should be supplied, and opening up new lines. He thus made every act of teaching an act of creation, and in doing so, he stands forth as a model of what a great teacher should be. More than most teachers he prepared himself for his daily work by careful study of the lessons of the day. Arnold always met his class in a state of great preparation, from fresh reading. Indeed he formed a very definite theory on this subject. He believed that every teacher should retire after some fifteen years' service, because in that period the literature of his subject got ahead of him, and he lost sympathy with the fresh scholarship of the day. He regarded the effects of illiterate teaching as most baneful, alike to the pupil's moral, nature and his intellectual progress; for, in leaving him stupid, it made him self-sufficient and sneering.

But Arnold had seen that public opinion must also be uplifted; to understand him well we must follow him beyond Rugby, and form an estimate of his political opinions, and his relation to the great movements of his age; note his work in the reform of the English university system, and the course of training that he would provide for girls; and examine his contributions to history and general literature. It is most interesting, however, to trace the intimacy which existed between him and his under masters; to study the close alliance which he formed with his celebrated Sixth Class, and learn

how, without exempting them from censure if they abused their trust, he utilized its members to carry his individual influence down to every part of the school; to see the extent to which he extended the Rugby curriculum, both by supplanting its elegant scholarship and superficial verbalism by a broader criticism, more earnest studies in philology, and more real research into the spirit of classical literature, and through the introduction of modern subjects, as history and modern languages; and to follow the deepening interest which he took in all his pupils, watching the growth of every individual, and reporting periodically on his progress.

This brief sketch will show the massiveness of Arnold's character. Every teacher should make an earnest study of this great man whose influence is still felt in many schools, and which is widening and broadening as the years go on.

Like all men who do good service in the world, or elevate its standard, he kept a high ideal of the dignity of work ever before him, and was keenly conscious of the disparity between the meagreness of his performance and the ideal at which he aimed. For worldly gain he cared singularly little: one of his pupils at Laleham thus describes the impression which his character left upon those closely connected with him:—"It was not so much an enthusiastic admiration for his genius, or learning, or eloquence, which stirred within them; it was a sympathetic thrill, caught from a spirit that was earnestly at work in the world, whose work was healthy, sustained, and constantly carried forward in the fear of God—work that was founded on a deep sense of its duty and its value, and was coupled with such a true humility, such an unaffected simplicity, that others could not help being invigorated by the same feeling, and with the belief that they, too, in their measure could go and do likewise."

## MUSICAL PROGRESS.

By THEODORE F. SEWARD.

It is a highly suggestive fact, and a proof of the moral power of music, that singing is now rapidly becoming universal in the schools just at the time when moral training is recognized as an essential factor in education. The time for regarding music as a mere recreation or relief from study is passed forever. The practical question now to be decided is, how pupils can get the most and best music in the shortest time.

It is strange that the educational people of America are so slow in waking up to the fact that the question is settled beyond a peradventure. They allow themselves to be confused by the representations of interested publishers. Why do they not accept the testimony of the members of their own profession, who have taken pains to inform themselves and are therefore qualified and disinterested witnesses? Dr. Nicholas Murray Butler writing from London, August 7, says: "My increased observation of English schools only strengthens my conviction, that Tonic Sol-fa is founded on sound pedagogic principles, and that it is by far the best method yet devised for teaching vocal music. The cause is bound to win, even though large financial interests are enlisted in opposition."

Superintendent MacAlister, of Philadelphia, speaks of the striking educational results to be witnessed in the London schools where the Tonic Sol-fa system is employed.

Prof. B. C. Gregory, superintendent of education in Trenton, N. J., writes an article on the subject which occupies nearly four columns of the *New York Evening Post*. He treats the subject exhaustively, giving the result of investigations which have extended over a period of four or five years. His article closes as follows:

"The conclusion to which we are brought by a careful consideration of the history and results of the new musical system may be briefly summed up as follows:

"(1) Tonic Sol-fa notation reduces vocal music to the ultimate of simplicity.

"(2) It is the best medium yet discovered for overcoming the difficulties of the staff.

"(3) While it is the best preparation for the staff, it is also a complete notation in itself, and opens the richest treasures of vocal music to the masses of the people.

"(4) The argument which is now being held out by publishers of staff books, that the results of the Tonic Sol-fa system can be secured without using the notation, is not sustained."

Since all agree that music is refining, elevating, and in every way an aid to moral development, let us have it in all the schools. And let us have music, pure and simple, as it is given to the children by a natural method, not music plus a combination of Chinese puzzles, which four-fifths of adult singers do not understand.

## SELECTED DEVICES.

### THE USE OF QUOTATIONS IN TEACHING SPELLING.

By the use of quotations I have succeeded in making the class in spelling a most interesting and instructive one to pupils and teacher. During the past two years, and the eight months of this year we have learned about forty helpful quotations from standard authors. I do not mean that we have merely committed them to memory. We have studied and learned them.

The plan of lessons is as follows: Write quotation on the board, and have pupils copy it carefully, being particular about spelling, punctuation, and capitalization. Have the pupils retain the slips on which they have copied it, telling them to come prepared at next session of class, to give substance of quotation in their own language, the meanings of all words, and synonyms of any you may point out for that purpose. At the next spelling recitation have them write the words learned in quotation, in original sentences. Ask some member of class to tell all he has learned of the author, and others to name his writings. Read to them the selection from which the quotation is taken, and encourage them to read others that you may name. Last of all have class write the quotation from memory. Never give a new quotation until the one before them is mastered by all the class.

If a quotation is long, it can be the subject of several recitations.

In order that the best results may be obtained, the following must be observed in the selection and teaching of quotations in connection with this particular class:

The quotations should be adapted to the age of pupils; they should contain new words for the children's vocabulary; have them vary in character from time to time. They should not be too long to be learned thoroughly in the time assigned for preparation of the lesson.

KATHERINE L. COURTRIGHT.

Philadelphia, Pa.

### MAKING PROBLEMS.

I write these figures on the blackboard:

- (1)  $14+17-8+2$ .
- (2)  $281 \times 46+18$ .
- (3)  $365 \times \$1.25-\$150$ .
- (4)  $140+196+2+174$ .
- (5)  $\$1.25 \times 281-\$160-24$ .
- (6)  $44,560+122+16$ .
- (7)  $22,650+92,721 \times 22$ .
- (8)  $45,068+162-81+56$ .
- (9)  $64+2 \times 3+81-17$ .
- (10)  $230 \times \$1.50-25.60+14.50$ .

Then I say, "James, you may write out a problem to fit No. 1." I give one to each of the class.

James will hand his in to-morrow. It will be, "I bought 14 pounds of candy at Mr. Brown's store, and 17 pounds at Mr. Smith's, to eat at my party last night. On my way home, I ate three pounds. As only James Barney came, he and I ate what was left. How much did each eat?"

The rest will hand in others less dyspeptic.

R. M. G.

### TEACHING LANGUAGE THROUGH HISTORY.

History, so closely allied to and growing out of geography, if properly taught, may be made a most excellent means of language teaching. Pictures, illustrating the great events in history, may be described. Following this, the teacher should tell short, interesting stories in history, which may be given back by the ready writers. Then comes a carefully-arranged list of topics in history. The eager children are led to read up the topic in a large number of books. In the hour of recitation they pour out their new-found treasures for their schoolmates to hear and discuss, and for the children to mold into consistency and order. Then comes the happy time when they can tell the whole story, in their own words, on clean sheets of white paper. I am describing no Utopia, but a reality, that comes to those who have an immense faith in the capabilities of human development. Every pupil in a grammar school, at the end of an eight years course, may be trained to do this beautiful work. You who, instead of feeding the child's wonderful, exhaustless power of imagining the good, the true, and the beautiful, have driven where the cutting lash of tradition turns the grand study of history into a dry, stupid

rote-learning of pages, dates, and meaningless generalizations, will remember that the new education leads you to the heights beyond Jordan, within sight of the Promised Land. Do not turn back to the rocky, sandy desert of Sin.

—F. W. PARKER.

### TO TEACH TIME TELLING.

In teaching children how to tell the time of day a fair representation of a clock can be made with pen and ink and the bottom of a pasteboard collar-box. Then cut cardboard hands, blacken them with ink or shoe varnish, attach them to the clock face with a pin, and my little kindergarten time school is ready for its delightful pupils. The children, being allowed to move the short hand for themselves under suitable instruction, soon master the hour lessons. Next, if they can count up to sixty, they are ready to take the minute hand on its steady rounds. Then comes the two-hand lesson.

"Make it one o'clock!" They comply. "Two o'clock!" Done. And so on until one is reached again. Next come the half hours, the quarter hours, and finally the odd minutes.

### LANGUAGE EXERCISE.

I put a line of poetry on the blackboard, and ask the pupils of my fourteenth grade (14 years old) to make a rhyme to it, of the same number of syllables and (if they can) the same accent:

"As the evening twilight fades away."

They have a day to do it. Then I let those who have got out a line put it on the blackboard. Then I put there the one written by the author:

"The sky is filled with stars invisible by day."

They learn about capitals, meter, accent, and in fact all the substance of poetry. They learn also the difficulty of writing, it and the beauty in the form of expression the poet selects—that is, to admire poetry.

T. L. F.

### TO TEACH MAGNETISM.

An interesting experiment may be performed with quite a small magnet and a common sewing needle. Insert a light thread in a needle, tie and cut off one end, leaving a single thread six or eight inches long. Lay a horseshoe magnet on a table, with the poles in front. Magnetize the needle by rubbing it several times, always in one direction, by one pole of the magnet, after each stroke returning the magnet in an arc through the air.

Take the end of the thread between thumb and finger, and suspend the needle over its attractive pole, allowing the point to come within one-fourth of an inch of the magnet; then, with a circular sweep of the hand to keep the point in position, draw the eye of the needle down toward the other pole. This, if carefully done, will bring the needle to a horizontal position, where it will remain, floating or in suspension, as long as the thread is held steadily.

The magnetic forces operating to produce this effect appear to be: First, the attraction of the left pole for the point of the needle; second, the repulsion of the right pole for the same point; and third, the attraction of the right pole for the eye of the needle, which is resisted by the thread supporting the needle; the latter also is held from approaching the left pole by the same means.

The experiment may be made more effective by covering the magnet with a sheet of paper, thus concealing it.

### TO SHOW EXPENDITURE.

Take a broad piece of paper, and with a ruler draw a light line quite across it about an inch from the bottom. Call this a base line, and make all your figures even with it, letting them extend upward as far as they may. Near the left side draw an upright figure six and three-fourths inches long and three-quarters of an inch wide (all are of the same width) and write over it, "Liquor, \$900,000,000;" draw the next one three and three-fourths inches long, and mark it "Bread, \$505,000,000;" draw the third two and five-sixteenths inches long, and mark it "Meat, \$303,000,000;" the next is two and one-eighth inches long, and is to be marked "Iron and Steel, \$290,000,000;" one and eleven-sixteenths inches will represent woolen goods, valued at \$237,000,000; one and five-eighths inches, sawed lumber, worth \$239,000,000; one and nine-sixteenths inches, cotton goods, valued at \$210,000,000; one and seven-sixteenths inches, boots and shoes, costing \$196,000,000; fifteen-sixteenths of an inch

stands for sugar and molasses, worth \$155,000,000; only three-quarters of an inch is needed to show what is done for public education, for which only \$85,000,000 is paid in the whole United States; and home and foreign missions bring up the rear with only one-eighth of an inch in extent, showing an expense of \$5,500,000!

### IMPERFECT ENUNCIATION.

The following cure for imperfect enunciation is not new, but nevertheless, it is good as a gymnastic exercise. Pupils who have a tendency to slur should be made to read many times sentences similar to the following:

She has lost her ear-ring.—She has lost her hearing. He lives in a nice house.—He lives in an ice house. Let all men bend low.—Let tall men bend low. He saw two beggars steal.—He sought to beg or steal. This hand is clean.—This sand is clean. He would pay nobody.—He would pain nobody. That lasts till night.—That last still night.

### RAPID SIGHT DRILL IN ARITHMETIC.

Cut pasteboard into three-inch squares; pencil, or paste from colored paper, figures on both sides as follows: paste 2 on a card nearest the right edge, leaving the margin at the left; turn the card over, turning up or down, not sideways, and place the figure 3 upon the other side in same manner, leaving the margin at the left. Arrange other cards in the same way, using numbers as high as desired. For primary work do not go above 9. Split the end of an ordinary pointer, and bevel the sides of the split a little, so that the card can be easily inserted and firmly held, and the apparatus is complete. In using, place numbers on the board, leaving at least six inches space between them; adjust the card in the end of the pointer, turning slightly, so that it will, when used, be square with the board. Instruct class whether to add, subtract, multiply, or divide, and then place the card in proper relative position to the numbers on the board for the indicated operation, changing from number to number as rapidly as desired. By simply rolling the pointer in the fingers, you can change the constant number easily, and as often as desirable. In teaching addition, write on the board the digits, then adjusting card 2-3, form combinations as rapidly as class can follow. Do not allow counting or guess work. Go slow. Drill until there is no hesitation in combining with 2, until 9+2 is as easy as 1+2. Do not have too much concert work. Call upon the dull pupils individually. Next turn pointer and drill upon 3; then use 2 and 3 alternately.

This should continue, using the other digits, until a foundation for adding without hesitation or mistake is surely laid. Treat subtraction in a similar manner, using care to have no "borrowing" at first. In advanced work, more than one figure may be placed upon the card. Do not do this until the other work is completed. Remember, combinations of digits is the main thing.

Multiplication can be taught in a similar manner, and also short division, and drill work upon fractions.

Numbers may be placed upon heavy paper, instead of board, if desired.

Castile, N. Y.

PRIN. D. A. PRESTON.

### TO TEACH THE EFFECTS OF ALCOHOL.

Have prepared two bottles, exactly alike, one containing alcohol, the other water. Pour a little of the alcohol into a saucer, and ask a child to touch it with a lighted match. Give the name of the latter liquid, if the children cannot. Tell its effects when taken into the body, producing instant death if used clear in any considerable quantity; if diluted, deadening the nerves. Teach the statement, "Alcohol is a poison," making it very emphatic, but avoiding, for the present, all mention of liquor. Let the fact of the poisonous nature of alcohol be fully mastered, and the inference that it renders poisonous the liquids which contain it will be readily drawn.

1. Write on your slates, *Alcohol is a poison*. Under this write the names of all drinks that you know which contain alcohol.

2. What poisonous drink is made from grapes? currants? elderberries? apples? barley? corn?

3. What kinds of food that are healthful and pleasant are made from grapes? currants? apples? barley? corn?

—ALICE M. GUERNSEY,

## THE SCHOOL ROOM.

In this department will be found methods of presenting subjects and of teaching them, founded on sound principles of mental development. It is intended that they be the best (not always the *only* best), whether new or old.

### FOR THE HISTORY CLASS.

By ELLA B. HALLOCK.

#### BIOGRAPHICAL PORTRAITS.

Appoint two leaders and have them choose sides. Select a list of noted historical characters from those whom the pupils have studied about, and give as vivid a description of each as possible, sometimes telling only prominent traits of character, and mind, and sometimes describing in a picturesque manner, a scene in which the character figured. Have pupils guess the character thus described. The side guessing the greatest number wins. To vary the exercise, have pupils make preparations for the contest, and each one in turn be able to give descriptions for those on the opposite side to guess. Some will be able to describe very minutely the picture they have in their minds, while others will be able to utter only a few words. This is a valuable exercise in expression as well as in forming mental pictures. The following is a brief specimen of a review exercise in history, conducted after the above manner.

*1st Portrait.*—An awkward, careless boy, slovenly in his dress, and unsuccessful in his business, a ne'er-do-well in anything, until a sudden turn of fortune brings him forward as the leading orator of the age. He stands before the convention at Richmond, and utters the famous words: "The next gale that sweeps from the north will bring the clash of resounding arms. I know not what course others may take, but, as for me, give me liberty or give me death?"

Who was the orator?

*2nd Portrait.*—The earth is covered with snow; human foot-prints are marked with blood. There are rows of comfortless huts, and huddled in them are men without even straw or blankets to keep them warm. They sleep on the bare earth, hungry, and benumbed by cold. The sick die unattended without food or medicine. Amid all this discomfort is the leader of these men, sharing their want and famine, and inspiring them with patriotism. Under all circumstances he is calm, dignified, and hopeful.

Who was this patriot and leader?

*3rd Portrait.*—A poor, unknown man possessing a visionary theory, stands in the presence of a lovely, intelligent queen. Holding a globe in one hand, he boldly explains his theory. Incredulity, indifference, and scorn are expressed on the faces of all the courtiers. The queen alone listens with interest and sympathy. In her earnestness she offers to pledge her crown jewels that the stranger's ideas may be tested.

Who was the man, and who the queen?

*4th Portrait.*—A young, brave Frenchman gives up home and honor for the American cause in the War for Independence.

Who was he?

*5th Portrait.*—It is night time. A negro is leading a general with eight hundred men through the darkness. There is a causeway leading over a marsh to a hill on which a fort is situated. The causeway is passed in safety. They climb a steep, narrow path, but before they can reach the top of the hill, they are discovered. Fire is opened on them and the daring general is wounded. With unloaded guns and fixed bayonets they press on carrying their leader in their arms. In a few moments there is a deafening shout and the fort is won.

Who was the general?

*6th Portrait.*—An American captain trying to learn something of the movement of the British is captured, tried, and executed. "I only regret I have but one life to give to my country," are his dying words.

*7th Portrait.*—Indians are seated under an elm-tree. A man dressed in gray, wearing a broad-brimmed hat, stands in their midst. In gentle tones he says: "We meet on the broad pathway of good faith and good will; no advantage shall be taken on either side, but all shall be openness and love."

*8th Portrait.*—An American general with a small body of soldiers is met by a British force far exceeding his own. He tries to make a stand; but is unable. Bidding his men seek shelter in a swamp, he spurs his horse down steep stone steps that have been cut in the hillside and are traveled only, by foot-passengers. A bullet pierces his cap, but he reaches the bottom in safety.

Who was the fearless rider?

*9th Portrait.*—A poor boy seventeen years old walks up the streets of Philadelphia. His wardrobe is in his pockets, his breakfast, which consists of a piece of bread, in his hand. Years afterwards he is one of the lead-

ing scientists, and at a most trying period in our history the favorite of the French court and one of America's best-loved citizens.

What was his name?

*10th Portrait.*—A coal-black horse, covered with foam, bearing one of the most fearless cavalry leaders that ever lived, dashes upon a battle-field, just as the battle is almost lost. "Turn, boys, turn; we're going back!" cries the rider. The flying soldiers turn and are led on to victory.

Who was the cavalry leader?

#### SCHOOL-ROOM MANNERS.

If manners do not make a man they certainly make a great part of him, so if manners do not make a school, they mark a school as a good or a bad one. *No good school can be ill-mannered.* Put that down as a principle. Now for a few applications.

**PRINCIPLE: GOOD ORDER COMES FROM WITHIN, NATURALLY; NOT FROM WITHOUT, ARTIFICIALLY.**

*Before school.* There cannot be the same order at this time as after work begins, but there can be order. Freedom should be given to do whatever it is right to do. The work and talk need not be connected with the school, but it should be accompanied with gentlemanly and lady-like actions. The freest liberty should be given as to going out and coming in. In a mixed school the young men and women should be given the same privilege as is allowed at home in the parlor, between brothers and sisters. There may be laughing and merrymaking perhaps in one corner, but it may be of such a sort as to disturb no one. Natural tones of the voice are used, and for half an hour or more the most delightful freedom is permitted; yet all within the limits of good breeding and according to the strict rules of good society. This before-school-time should be made the subject of a school talk on good form in society. The subjects discussed in this talk should be the following:

The respectable world never forgives low breeding. It forgives sin, but never impoliteness. A low-bred and ill-mannered young lady is always suspected of being immoral, and a bad-mannered young man will never succeed in business. The following are the marks of low culture: The use of loud, shrill tones in conversation—gesticulating in familiar talking—bad postures in sitting—keeping the mouth open when listening—contradicting—talking while another is speaking—interruption in conversation.

Such a familiar talk should be uttered in natural tones, with no personal allusions, and no references to out-breaks in the school. The law of kindness and politeness should pervade every word. The reason why school talks or "lectures," as they are often called, fall flat, is because they are delivered in a wrong spirit. Nothing helps a school more than a polite, kind, but plain talk on things that directly pertain to success in life. But teachers should remember one rule, a modification of Solon's famous maxim—it is this: *Make it for the interest of your pupils to do what you ask them to do.* No law, no request, no rule, made in accordance with this principle will ever fail of being obeyed. The time of liberty before school and at noon-time affords an excellent opportunity for observing the effect of the teacher's talks, and gives texts for future ones. In correcting faults, observe this rule,—Never let any one, but the person corrected, know that a reprimand has been given. Publicity destroys the power of corrections given for minor faults.

*At the opening of school.*—Nothing marks the grade of a school more accurately than the manners of the pupils at its opening. The following points should be observed: The disposition of hats, cloaks, lunches, etc., before entering the room,—the condition of the feet, hair, clothes, hands, and teeth,—the manner of walking, looking, standing, sitting down and rising up, etc. These are a few points. To one not accustomed to school discipline, it would seem a herculean task to correct and regulate all of these points; but, properly undertaken, the work is easy. Let us see what constitutes a perfect opening in a perfect school. The last bell is rung two minutes before the time of opening the school, pupils who are out immediately come in, quietly, and take their own seats, sitting noiselessly, not a book open, no whispering, no looking around, but all naturally, pleasantly, and expectantly waiting for a signal from the principal. Before the pupils have entered the room, all superfluous garments have been laid aside, the hair has been neatly arranged, the teeth cleaned, shoes freed from mud, and hands and faces made presentable,

The clothes of the pupils are whole and clean but plain, (no silks or satins being allowed), and the odor from the pupils indicates a familiarity with pure water and good soap, and not the outward application of odorous cosmetics covering up a mass of uncleanness beneath. The pupils do not sit in military order or postures, but naturally, as in a polite assembly, and all eyes are turned towards the principal, as he rises to open the school. This is ideal. Where is its reality? Its *counterfeit* is sometimes seen, when by special watching the school is made to assume a military appearance, but *this is not order*. This comes, when it comes, genuinely, like the sparkling water from a cool hill side, no forcing about it. How can it be obtained? By example and precept, but example *first*. Clean nails—let the teacher's nails be clean; clean, whole clothes—so must be the teacher's; clean shoes, well-arranged hair, good manners—all these must be in teachers first. Lessons should be given in every school on the "mechanics" of minor morals, and the following points discussed:

A good tooth-brush and how to use it—a good comb and hair brush, and the proper care of the hair—a good shoe-brush, and good shoe-blacking, and how to put it on—cuffs and collars, and neck-wear; coats, vests, pants, dresses; how to clean, put them on, and care for.

These and other cognate subjects touch the world on its most practical side. A talk about the finger and toe nails, hands and feet, properly worded, would be most interesting and profitable. Then what a subject the teeth suggests! How much disease and discomfort comes from their neglect! One half the occupation of the dentists would be gone, if the care of the teeth was properly commenced in childhood, and continued to manhood. Our best schools are giving more and more attention to this subject. We are sending the whole child to school now-a-days.

*Opening exercises.* Much has been written about this part of school work during the past few years, but we have not reached the end. Their character depends upon the kind of school taught. In a religious school they will have a churchly character, in a free public school they will be given a more general tone. We have not space to give special plans, only our principle is this: Opening exercises should be (1) interesting, (2) cooperative (*i. e.*, should be participated in by both pupils and teachers), and (3) instructive. Include these points, and the exercises, whatever may be their other characteristics, will educate, and this is the end of all school work—*education*. Concerning prayer and the reading of the Scriptures, we have nothing to say here. We have decided opinions, which on all proper occasions we are willing to express, but all we say here is, *let each teacher be thoroughly persuaded in his own mind* as to the best course to pursue. Opening exercises should be conducted without the presence of visitors, so as to avoid the temptation to show. Never ask a visitor to take part in them. The principal should touch his own keys at this time, then he will be certain to get his own music. It is not the time or place to ask Rev. Mr. Smith to "lead in prayer." Don't have Rev. Mr. Smith or any other Rev. there if you can help it, but if you must have him, ignore—politely—ignore him. This is our advice.

#### COMPOSITION OF SELF.

**NOTE.**—There are a few facts of universal interest every one should know. The days of the week, the number of days in a certain month or a certain year, and facts concerning *self*, mentioned below. They should not be given as a lesson but talked about.

The number of bones in man is 240.

The average number of teeth is thirty-one.

The average weight of a skeleton is about fourteen pounds.

The weight of the circulating blood is about eighteen pounds.

The average weight of an adult man is 140 pounds six ounces.

The brain of man exceeds twice that of any other animal.

A man annually contributes to vegetation 194 pounds of carbon.

A man breathes about twenty times a minute, or 1,200 times in an hour.

One thousand pounds of blood pass through the kidneys in one hour.

The skeleton measures one inch less than the height of the living man.

A man breathes about eighteen pints of air in a minute, or upwards of seven hogsheads in a day.

The average weight of the brain of a living man is three and a half pounds; of a woman, two pounds eleven ounces.

Twelve thousand pounds, or twenty-four hogsheads, four gallons, or 10,784 pints of blood pass through the heart in twenty-four hours.

## OCEAN CURRENTS.

## NOTES OF LESSONS.

By J. H. COWHAM, England.

## INFORMATION.—1. CURRENTS CAUSED BY WINDS.

- (a) Winds blowing across seas and oceans disturb their surfaces, and cause the formation of RIPPLES, WAVES, and BREAKERS.

1. Ripples are formed by gentle breezes. They are most frequently seen upon the surface of small areas of water, such as pools and rivers.
2. Waves are caused by strong winds blowing across seas and oceans.
3. Breakers are formed when sea waves dash on a shore. Refer to pupils' experience on ponds and lakes.

- (b) If winds continue to blow in one direction, the surface water is impelled in the same direction. This forward, or onward movement of the water, is a DRIFT CURRENT.

The great Equatorial Currents of the Atlantic and Pacific oceans flow in the direction of the trade winds.

Refer to the globe and map.

- (c) At the same time currents are set up in an opposite direction to the drift currents in order to restore equilibrium. These are called COUNTER CURRENTS.

## 2. CONTRASTS BETWEEN CURRENTS AND WAVES.

## CURRENTS.

## WAVES.

- (a) The movement is onward. (a) The movement is up and forward, down and backward. (*Undulatory*. Show by experiment.)

- (b) Formed in the oceans over which constant and periodic winds blow, and they continue to flow in the same direction.

- (c) Move slowly:—The Gulf stream at Florida travels at the rate of 4 miles per hour.

## 3. CHIEF WIND OR DRIFT CURRENTS.

- (a) In the Atlantic.—The Equatorial, the Gulf stream, and the Guinea currents; the Arctic, the Labrador, the Brazil, and the connecting currents.

- (b) In the Pacific.—The Equatorial, Japan, Mexican, Australian, Antarctic, and Peruvian currents.

- (c) In the Indian ocean.—North of the equator the currents are variable; south of the equator are the Equatorial, the Mozambique, and the Counter currents.

## 4. CURRENTS CAUSED BY UNEQUAL TEMPERATURE.

## FACTS FOR EXPERIMENT.

- (a) When water is heated it expands.
- (b) Warm water is lighter, bulk for bulk, than cold water.
- (c) The warmed and light water is forced out of place by the colder and heavy water.
- (d) When water is chilled down to a temperature not exceeding 4°C. it sinks below the surface until it reaches water as cold and heavy as itself. Nothing should be taken for granted that can be demonstrated.

## 5. APPLICATION TO OCEAN CURRENTS.

In the oceans the warm areas are in the tropics, and the chilled water is collected in Polar and Arctic seas.

- (a) The heavy, cold Polar water moves towards the warmed water in the tropics. Why?
- (b) The warm water near the Equator flows over as a surface current towards Polar regions. Why?
- (c) Very cold water is almost universally found in the lower depths of the ocean. Why?

EXAMPLES:—The late Dr. Carpenter held that the Gulf stream was continued north-eastward, from about Lat. 40° N., by this oceanic circulation. The steady in draught of cold water from the poles is supposed to be another example. The *Challenger* expedition found the temperature of the Atlantic floor to be uniform about 35° Fahr.

## 6. MOST IMPORTANT EFFECTS OF OCEAN CURRENTS.

- (a) The currents from the Equator carry warmth to the temperate regions they visit, and vice versa. The cold Polar currents modify the heat of the tropics. Why?
- (b) Maintain the purity and uniform composition of sea-water. Why?
- (c) Sailing vessels are aided or hindered by the direction of the currents. Why?

It is immoral to make a child say that London is the largest city in England, unless he can be brought to have some idea of how London looks.

## OBJECTIVE METHODS.

## CIVIL GOVERNMENT AND HISTORY.

By MRS. BELLE BLANDIN, Houston, Texas.

Answer to the request, "Will each teacher who uses objective methods in geography, history, language, science, apparatus making, describe his school to us?"

To illustrate the lessons of the class book of civil government, I held a registration in due form, then an election; held court, and tried a civil and a criminal case; organized a legislature and passed a bill "To make Luling a separate school district."

I illustrate history by diagrams or local objects. I drew a diagram of the Alamo, showing the church, monastery, barracks, and the wall surrounding them; the river, and the lines by which the enemy approached. I indicated the bell tower, room where Bowie was killed, the entrance to the magazine, the window by which the Mexicans entered the church, and the place where Santa Anna entered the enclosure, and the north gate where the lines united and forced an entrance.

I had the class read the text, and compare it with the diagram, and then I had read some articles written by persons who lived in Texas at that time, and were familiar with the events and actors.

## Surrender at Yorktown.

As we look out of the school-room door across the prairie, we see a house. I asked the class, "How far is it to that house?" "A mile." Just suppose the city here is Yorktown, this school-house is the gate, and the French and American troops are drawn up in two lines from this point to that house. Washington and his staff on horseback at the head of the American line, Count Rochambeau and his staff also mounted at the head of the French line. Imagine the "Luling Greys" on parade, and you'll have an idea of how the soldiers looked. Then the British army, which had held Yorktown, marched out of the gate right here, their officers at the head of the line, and marched down between the two lines until they got to that house. Just look out and picture it, and imagine that prairie on the right, and that field on the left, covered with people—men, women, and children—all dressed in their best, looking on. I had some pictures of the costumes of those days, and showed them.

## HINTS IN REFERENCE TO MAKING THINGS.

*Teaching children to help themselves is teaching them to some purpose.*

Read over the above, and then what follows. *First, teach pupils to make useful things.* The girls can make simple garments in school. What, some one says, in school? Yes, in school. It will be a grand day when a girl can learn how to cut out, trim, and ornament an apron in school hours. The various forms of sewing, darning, mending, and stitching, properly taught, will do a great deal of good, *educationally*. The art of sewing is not made an educational force in many homes; it should be in all our schools. Sewing is taught in all the schools of Philadelphia as an educational force. Boys can make boxes at home, if there is no work bench and tools in the school-house. These should be criticised and compared together, and emulation excited to *make the best work possible*. It is very useful to learn how to make a good joint. Let the pupils try to make the best they can, dovetailing when it is possible. Use no nails, only wooden pegs that can be pulled out. Rulers, pointers, wood boxes, chalk boxes, scrap boxes, map holders, door-steps, board walks, gates, stiles, tree-guards, desk boards, or drawers for pens and pencils, etc., etc., can all be made by pupils. Permanent ornaments can be constructed. These can be of various kinds, as picture frames, ceiling borders, flower holders, brackets for vases, umbrella stands, etc. The ordinary teacher will say that this is not practicable. We answer that the ordinary teacher does not know how much ingenuity and skill there is in her pupils until she has tried. Children love to be making things. Now the effort should be to get the ideal of the things to be made sufficiently high, so as to lead pupils to make worthy efforts to excel. Here is where emulation is worth something.

Map-drawing affords an excellent opportunity for doing. Map-drawing has been used as an end; it should be employed only as a means. Every line and every color should represent a geographical idea or thought. Let the pupils draw all the states on the same scale, and cut them out so as to make separate pieces of paper,

These can be placed one upon the other, and thus represent to the eye a very valuable lesson in geography. The water color can be put on so as to represent different heights above the sea level. Even young students in geography can learn valuable lessons in this way, and not fill the mind with stale detail. The sizes of cities can be represented by different sizes of square pieces of paper. The application here is large.

Drawing is now taught in all good schools. This can be made of great use as a means of doing and making, especially drawing the form of various solids, *from one piece of paper*. The simplest is a cube. Then will follow a solid pyramid, and other similar figures. The field is here immense, as can be seen at a glance. Ten thousand different solid forms can be constructed, each from single pieces of paper. One school in this city made several hundred during the last term of last year. The work of folding geometrical solid forms invented by the pupils from single pieces of paper is one of the most useful ways of "making" ever invented.

## OBJECTIVE GEOGRAPHY.

By SUPT. L. McCARTNEY, Sioux Falls, Dak.

What are the elements of geography? In later study of geography, the child will be required to form mental pictures of the earth as a whole, and various parts of its surface. He will need to imagine not only the conformation of the surface, but all that is on it. In order to do this, he must have in his mind the elements of which those forms are composed. He cannot mentally realize the forms of land in Palestine, unless he has a clear idea of the slope as an element. He cannot see its ravines and valleys, its streams and lakes, unless he has already gained the fundamental forms of land and water. When the child enters school, he brings with him clear mental pictures of many of these forms; others must be given him by the teacher.

A child, born and raised in a prairie country, will have gained clear ideas of plain, valley, ridge, creek, river, and perhaps others less common. He must be taught to imagine mountain, mountain range, river system, and other forms quite fundamental, but not within the sense-grasp of one in his locality. The elements of geography are the same everywhere; but those elements which need to be taught most carefully, vary according to location. This theory is diametrically opposed to the presentation of the broadest generalizations as the elements of geography. It takes the child from learning to say, "Geography is a description of the earth's surface," and sets him to studying the hills, ridges, slopes, streams, and drainage system of his own vicinity. When he has exhausted the resources of his neighborhood, his mind is directed to such forms as are fundamental, but not familiar to him.

When all such forms have been mastered so fully that the child can reproduce them in miniature, and describe them fairly in his own language, he is ready to enter the science of geography. He is now able, by combining ideas already gained, to imagine great continents clothed with vegetation, and teeming with animal life. At the mention of the word Africa, he readily learns to think, not of a map, which the publishers have made a general receptacle of superfluous color, but of a great mass of land, mountain-girt, save here and there a break, where some mighty river has washed a gateway to the sea.

## IMPORTANT FACTS TO BE OBJECTIVELY TAUGHT.

These can easily be taught by experiment. In no other way can they be learned. Telling will not do. If it is possible, let the pupils do for themselves. They certainly must see.

1. Some liquids boil at a lower temperature than water, some at a higher.
2. Bubbles formed in water when boiling are filled with vapor of water.
3. Real steam is invisible.
4. All substances do not require the same quantity of heat to raise them to the same temperature.
5. Some substances are very poor, and others very good conductors of heat. What is conducted? What is heat?
6. A bad conductor may keep heat in and also keep heat out.
7. Our clothes do not make us warm. Why?
8. Water is a very bad conductor of heat. How does this fact affect the climate of some portions of the earth?

NOTE.—Some teachers will be tempted to write these facts on the board, and require the pupils to commit them to memory. When they are recited, an ignorant visitor might think the pupils had been remarkably well taught, whereas they had not been taught at all. If you can do nothing more with these facts than require their memorization, do nothing at all with them.

## SUPPLEMENTARY.

The teacher will find material here to supplement the usual class work, in geography, history, etc. If rightly used it will greatly increase the general intelligence of the pupils, and add to the interest of the school-room.

CHINA'S ANCIENT CAPITAL.—A recent visitor to Nanking gives the following entertaining description of the city:

"A crenelated wall, built of brick and stone, sixty feet in height, and, it is said, thirty-six miles in circumference, encloses the city. It is in an excellent state of preservation, considering that it was built over a thousand years ago. Much of the area enclosed by this wall has lapsed into a savage state, and become the resort of wild game. The city, no doubt, was once a very great one; there are evidences of it everywhere. In the thirteenth century it was the capital of the empire. It is still of vast extent, and from what I saw of its recent condition, and the many ruins of ancient palaces and temples, and paved roads, that once were populous and busy streets, I could well imagine its former greatness. The present population is estimated at 600,000. The capital was removed from Nanking to Peking in the Ming dynasty in 1411.

"The tomb of the first Ming emperor is in a picturesque valley a mile or two outside the walls. Leading up to it on the plain are a number of colossal stone figures of warriors, elephants, camels, lions, &c., in more or less dilapidated condition. The ample grounds which enclose the tomb, were at one time ornamented with stone and marble bridges, kiosks and tablets, the remains of which are scattered about the grounds, buried in a rank growth of wild shrubbery and trees. Near here was the great first pagoda, built way back in the centuries at a cost of three million taels. Its material was porcelain brick, the top overlaid with burnished copper and ornamented with jewels. No vestige of it remains to-day.

"The city is now the capital of the department of Yangtze, where resides, with a large number of officials, the Viceroy Tseng. It has always been noted as the seat of learning of the empire. It is the headquarters also of the Viceroy's army and navy. There is an arsenal here, where small arms and ammunition are manufactured; extensive manufactures of ribbons, silk, satin, and velvet. 'Nankeen,' a fabric well known, is made here from the yellow cotton plant. There is a paper manufactory which makes a beautiful translucent paper from vegetable pith. This paper is much used for painting water-color pictures by native artists.

"Being the literary center, the annual examinations of candidates, for all civil and military positions are held here. The examination hall has accommodations for 30,000 students. Under cover of the hall are long rows or streets of cells, about three and a half feet deep, and three feet wide, in which the candidates are confined from three to nine days. They are given the subject, pen, ink, and paper, and closed in. At the last examination, there were 29,000 candidates for the vacancies.

"The only foreigners in the city are about thirty Americans. The central mission of the Methodist church has a hospital at Nanking, where the Chinese are received, and treated at a nominal expense. This is practical Christianity, which the people understand and appreciate."

THE BETEL NUT.—The betel nut, of which the Malays are said to be so fond, is a white nut which looks almost like ivory. Every Malay family without an exception has a box, divided into little compartments, and with a drawer at the bottom containing a pair of shears. In one of the compartments of the box is some betel nut, cut fine with the shears; in another several sirih leaves; in the next some slaked lime made from coral shells, and in the last some fine tobacco. At midday, which is the dinner hour, the family assemble and squat in a circle on mats, which do duty for chairs. In the center is a bowl of rice and another of curry. Each one takes a handful of rice in turn, dips it in the curry, and conveys it to his mouth without spilling a crumb. To do this gracefully is the height of Malay table etiquette. After all have finished the betel box makes its appearance and is handed round. Each person takes one of the sirih leaves, which are five inches long and arrow shaped, and lays it out flat on the palm of the left hand. Then he takes a little betel nut, puts some of the lime upon it, adds a small quantity of tobacco, and then rolls the

whole up together. Then he places it in his mouth, holding it by his front teeth, never chewing it by his side teeth as Americans do tobacco. Then you may want to hire him, or to transact some business with him ever so badly, but he won't stir. He will simply say: "I have no time for it, master. I am chewing the sirih."

A TIGER MAN-EATER.—The notorious Jounsar man-eating tigress has at last been killed by a young forest officer. This tigress has been the scourge of the neighborhood of Charaka for the last ten years, and her victims have been innumerable. On one occasion she seized one out of a number of foresters who were sleeping together in a hut, carried him off, and deliberately made him over to her cubs to play with, while she protected their innocent gambols from being disturbed. She stood over the prostrate form of her victim and purred in a cat-like and self-complacent way to her cubs, who were romping about and rolling over the apparently lifeless body. She then lay down a few yards off, and with blinking eyes watched the gambols of her young progeny. In a few moments the man sat up and tried to beat the young brutes off. They were too young to hold him down, so he made a desperate attempt to shake himself free, and started off on a run; but before he had gone twenty yards the tigress bounded out and brought him back to her cubs. Once more the doomed wretch had to defend himself over again from their playful attacks. He made renewed attempts to regain his freedom, but was seized by the old tigress and brought back each time before he had gone many yards. At last the tigress herself joined in the gambols of her cubs, and the wretched man was thrown about and tossed over her head exactly as many of us have seen our domestic cat throw rats and mice about before beginning to feed on them. After tormenting him in this way for a while the tigress began to eat him.

MACARONI MANUFACTURE.—Macaroni has of late years come into very general use in this country. It was formerly almost exclusively manufactured and used by the Italians, and doubtless it is of Italian origin. To-day Chicago is one of the great manufacturing and distributing points for this popular article of food, although the industry is solely in Italian hands and under Italian control. The process of manufacture is simple, and cannot avoid being cleanly. The best of flour is simply kneaded into a dough, water only being used. After this has passed through the mixing machine, an ingenious device, it is kneaded by the use of heavy polished iron roller weighing two tons, and is then pressed in cylindrical iron presses through a perforated mold placed in the bottom of the cylinder. This is macaroni proper. Then, according to the needs of the trade, the dough is cut into more complicated and fantastic figures, the shape being as ingenious as the inventive faculty of man. All the time it is but plain macaroni, and yet it is formed into stars, letters of the alphabet, sea shells, corrugated forms, ribbons and the silk-like thread called vermicelli and filleni. One peculiarity of this staple article is that it is almost proof against climatic changes and influences. In one of the caches constructed by Sir John Franklin's party a box was found intact and untainted forty years after, and at the time of the Greely rescue the first soup served the survivors was macaroni soup.

## THE "REALLY IMPORTANT" AUTHORS.

In a recently published letter written by the late English philosopher, Henry Thomas Buckle, the names of the following writers are given as the "really important authors whom the world has produced:" Homer, Plato, Aristotle, Dante, Shakespeare, Bacon, Descartes, Hobbes, Grotius, Locke, Berkeley, Kant, Hegel, Comte, Mill, Adam Smith, Malthus, Ricardo, Cervantes, Bunyan, and Goethe. Probably every man would be governed, in making out such a list, more or less by his own feelings and tendencies. Certainly Mr. Buckle has been, for there is a large proportion of philosophers, while the novelists, who have done so much toward shaping the world's thought during the past hundred years, are practically unrepresented. As English literature is the greatest of all literatures, so we should expect the names of more English writers on such a list than of those of any other country, but ten English authors out of twenty-one is hardly a just proportion. Furthermore, while he mentions Homer and Dante he strangely enough leaves out the other member of the epic trio—Milton, and passes over the Roman literature entirely. Again, have we no

American authors worthy to be placed among the world's greatest writers? Probably the names most likely to occur to an American are Emerson, Bryant, Longfellow, Hawthorne, Irving, and Poe. It would be interesting to compare lists prepared by poets, novelists, and other classes of writers of different nationalities. Of the names on Mr. Buckle's list nearly all such lists would be likely to include Homer, Plato, Aristotle, Dante, Shakespeare, Bacon, Cervantes, and Goethe.

## DELAWARE'S CURIOUS BOUNDARY.

No one has failed to notice that the northern boundary line of Delaware is the segment of a circle. It is interesting to know how it came to be of this shape. The following is its history:

In 1732, when Washington was a babe in arms and the territory now forming the state of Delaware belonged to the heirs of William Penn, it was agreed by the proprietors of Pennsylvania and the proprietors of Maryland to settle a long standing quarrel by fixing the disputed lines. The result was the creation of such a set of boundary lines as perhaps cannot be found anywhere else on earth. If the original intent had been carried out with mathematical accuracy, the resultant boundary would have been sufficiently perplexing, but through the mistakes of surveyors and the stubborn perversity of tradition, the lines have become even more obscure than the proprietors intended they should be. The agreement of the proprietors was that a circle of twelve miles radius should be described about the court house in the town of New Castle as a center: that an east and west line should be run from Cape Henlopen on the Atlantic to Chesapeake bay; that from the center of this line a line should be run northward so as to form a tangent to the New Castle circle; that from this tangent point a line should be run due north to the parallel of latitude running fifteen miles south of the most southern point of Philadelphia, and that the parallel should be prolonged from the northern terminus of this due north line westward as far as the two provinces extended. It was further stipulated that should the line extending due north from the tangent point cut a segment of the circle, that segment should belong to New Castle county, then part of the Penns' possessions, and now the most northern of Delaware's three counties. Such a segment was cut off, and it now belongs to New Castle county, Delaware, though most map-makers have been ignorant of the fact, and even the persons living within the segment have not suspected the existence of any such shred of territory. The result of surveys in accordance with this agreement was the formation of the odd boundaries shown in our maps.

## CONCERNING SPARROWS.

In a recent communication to *Nature*, Dr. H. A. Hagen writes: "I was amused some years ago to observe the feeding of the young in a sparrow-house near an upper window of my house. The old sparrow alighted upon the small veranda of the sparrow-house with four living canker-worms in his beak. Then the four young ones put out their heads with the cu tomary noise, and were fed, each with a caterpillar. The sparrow went off, and returned after a while again with four living canker-worms in his beak, which were disposed of in the same manner. I was so interested and pleased with the process, that I watched it for some time, and during the following days. A fact which I have not seen noticed here in the extensive sparrow literature is, that for a number of years sparrows began to build nests of dry grass and hay at the top of high trees. The first I saw were large, irregular balls placed on the tripod of twigs. The entrance was on the inner side, near the lower end of the balls. Last year I observed another form of the nests. A strong rope formed of dry grass, as thick as a man's wrist, and as long as the fore-arm, is fastened only with the upper end to strong branches at the top of high trees. The rope's end has a rather large, ovoid shape, with the entrance to the inside near the end. Of such nests I saw last winter about a dozen on the elms here in Main street, near the college grounds, and similar ones in Putnam avenue and other streets. A long pole near my house strongly covered by a vine (*Celastrus scandens*) had such a nest for three years, used every year. In the sparrow-houses around my lodging the sparrows stay throughout the winter, commonly one male and three females in every house, till in spring the superfluous females are turned out."

## NOTABLE EVENTS.

**THE ATLANTIC COAST STORM.**—The recent storm on the Atlantic coast was one of the severest ever known. The rain fell in torrents, the tides were unusually high, and the wind blew a gale, causing huge breakers to roll far inland, doing a great amount of damage to bathing houses, summer hotels, and other structures built along the coast. Another large portion of the beach at Coney Island was swept away, and wreckage strewn all along the sand. A terrible scene was witnessed at Atlantic City. Lee's Ocean terrace in that place, which juts out into the ocean, was surrounded by a wall that it was thought would defy any storm that might come. The high tide broke over the wall, and surged around the buildings. The women and children, and much movable property, were taken to a place of safety, and then flames burst forth, aiding the waves in the work of destruction. No trains could get to the place, or leave it, for about a week. Sailors report that it was the worst storm at sea they had met in years. The signal service displayed cautionary signals from Eastport, Me., to Wilmington, S. C. What is the signal service?

**A STRANGE SCENE AT THE ANTWERP FIRE.**—One of the most singular features at the Antwerp fire was the unlooked-for bombardment of ships lying in the river. Two thousand tons of cartridges that were stored in the burning buildings exploded. The sides and rigging of the vessels were riddled with bullets, and a number of sailors and customs officers on board were killed. The devouring flames, the clouds of smoke, the explosions of cartridges and barrels of oil, the falling buildings, and the terrified people running hither and thither for their lives, made a scene whose equal was perhaps never before witnessed. The reports of the explosions were heard thirty miles away, and the volume of smoke arising, exceeded that of any of Europe's greatest battles. The river banks, out of the reach of the flames, were covered with men, women, and children, who, rendered destitute and homeless, camped out and took the most desperate chances of obtaining food. About 200 people were killed, and many hundred injured. Why should not cartridge and similar factories be allowed in cities?

**BOOMERS IN DAKOTA.**—A number of people known as "boomers," who have been trying to get up a rage for taking up government lands in Dakota, have caused some trouble there. The Interior Department thought best to station several companies of soldiers at Fort Pierre, to preserve order. Some government surveyors came and surveyed a mile square allotted to the Northwestern Railroad Company. Settlers on this piece of ground were numerous, some having been located there over ten years, and great excitement prevailed, as they feared the company would order them off. What do you know about the public land? Why have large tracts of it been given to railroads?

**EXTENDING WESTERN RAILROADS.**—The railroad is to play a yet more prominent part in the history of the Northwest. The Northern Pacific is heading through Montana for the Saskatchewan river, which it will reach next year. The Canadian Pacific is seeking to head it off, and has let a contract from Regina to Prince Albert on the same river. Next spring the line will be extended from Prince Albert westward, through Edmonton and Yellowhead pass of the Rocky mountains to Vancouver. When was the first road across the continent finished? (May, 1869.) How was California reached previous to that? What effect had railroads on the settlement of the West?

**STANLEY GOING TOWARD MOMBASA.**—It is reported that Henry M. Stanley is marching toward Mombasa, a little north of Zanzibar. He is fighting his way through the hostile country, and subduing the natives. Stanley has made good the claim of the British East African Company, over the country from the Upper Nile to the east coast. This service is of very great value, and will have considerable effect on the future of Africa. What other services has Stanley performed? (He was in charge of an expedition in search of Livingstone, whom he found near Lake Tanganyika, in November, 1871. Stanley explored the Lake region of Equatorial Africa in 1874, making the entire circuit of Lake Victoria Nyanza. He also founded the Congo Free State.)

**ACTIVE GEYSERS IN YELLOWSTONE PARK.**—Great explosions of gas and steam have lately taken place in the upper Geyser basin. The Giant and Giantess are in furious activity. Occasionally a stone is thrown to the height of 100 feet. At night the scene is wonderful. The effect of the moonlight on the various emissions of steam and rock, mineral and earth, renders the scene weird, spectral, and impressive. What causes geysers? In what other countries are they found?

## CORRESPONDENCE.

## ANSWERS TO VARIOUS QUESTIONS.

## ONE L IS CORRECT.

The spelling of the word woolen—one *l*—is correct according to Webster, and he is good authority in this country.

## BOTH USED.

We should say, either "the class graduated," or "the class was graduated." Also "the class invites," or "the class invite;" both are correct.

## WHEN THE ROMANS ADOPTED THE WEEK.

The Romans did not adopt the week until the time of Theodosius, about 395 A. D. Before that time they merely had the months divided into arbitrary periods called Calends, Nones, and Ides, and called their days the first of the Calends, the first of the Ides, the first of the Nones. The Egyptians invented the week. Their week began with what we call Friday.

## THE FIRST GRAMMAR.

Dr. John Colet's "Grammar of King Henry the Eighth" was published about 1510. It is written in antique English, but was designed to teach Latin; from the circumstances that its author was dean of St. Paul's and that the book was dedicated to William Lily, head master of St. Paul's school, it is called "Paul's Accidence." As far as is known, the next English grammar was published in London in 1580. It was called "A Treatise of Orthographia in English, by William Bullokar," also afterward "A Brief Grammar for English." The definitions and rules were expressed in rhyme and meter.

In 1586 "W. Bullokar's Abbreviation of his Grammar for English, extracted out of his Grammar at large, for the speedy parsing of English speech, and the easier coming to the knowledge of Grammar for other languages. Imprinted at London by Edmund Bollifant, MDLXXXVI." He did not abbreviate the title of his abbreviated book. Both books were printed in old English black letter type.

The famous grammar by "Rare Old" Ben Jonson, "The English Grammar made by Ben Jonson for the Benefit of all Strangers, out of his Observation of the English Language, now Spoken and in Use," was first printed in 1637.

## WHY RHODE ISLAND HAS TWO CAPITALS.

The two capitals of the state are the capitals of the two larger original colonies composing the state, the Rhode Island colony, and that of the Providence Plantations. In fact, the full legal name of the state is "Rhode Island and Providence Plantations." Until 1854 there were five capitals; the legislature met each May at Newport, and each October, one year in South Kingston, and the next year alternately at Bristol and East Greenwich, and then by adjournment at Providence. South Kingston, East Greenwich, and Bristol were capitals of the smaller colonies of the state.

## THE HIGHEST MOUNTAIN EAST OF THE ROCKY MOUNTAINS.

It is Clingman's Peak, North Carolina, 6,940 feet in height.

## THE ORIGIN OF THE DOLLAR SIGN.

The probability seems to be that the dollar mark is of Spanish derivation. On old Spanish coins are to be seen two pillars with a ribbon wound about them. These pillars represent the so-called "Pillars of Hercules," at the entrance to the Mediterranean sea. The pillars were on the Spanish piece of eight, or dollar, and it seems most probable that the mark once having been made to represent a coin that bore the original mark, was afterward used to represent a coin which, though it had no such mark, at least had about the same value.

## WHO SAID "DON'T GIVE UP THE SHIP"?

Capt. James Lawrence, commanding the United States frigate Chesapeake. He had accepted a challenge from Commander Brooke, of the British frigate Shannon, to a duel between the two vessels. The engagement took place just outside of Boston harbor, and lasted only a few minutes. Capt. Lawrence was wounded, and, as he was carried below, exclaimed, "Don't give up the ship." The Chesapeake had to surrender, however. Lawrence died on the voyage to Halifax, and is buried there. He was not quite twenty-six years old.

## MR. OR HON., WHICH?

In none of the state constitutions is there a provision giving state legislators the title of "Honorable," nor is there any written law by which congressmen and senators assume it. Just as many men have dropped the titles they won during the rebellion, so sensible men are discarding the prostituted title of "Honorable." Plain "Mr." is coming into fashion again, and not too soon.

## THE LAST DAY OF WINTER.

The last day of winter is March 19. Spring begins on March 20. The beginnings of spring and autumn are determined by the equinoxes; those of summer and winter by the solstices.

## TROUBLE BETWEEN HAYTI AND THE UNITED STATES.

First, Hayti had a revolution; then Legitime, temporarily on top, declared a blockade of the Haytian ports. Then the Haytian Republic, having on board arms and munitions of war, tried to run the blockade, and was captured. A prize court decided that the capture was proper; but the United States refused to accept the decision, claiming that the court was improperly constituted, and the blockade announced and maintained. As Legitime refused to give the vessel up, we sent down and got her. There was no trouble, however.

## PYRAMUS AND THISBE.

Pyramus and Thisbe are lovers, who agree to meet by moonlight. Thisbe reaches the trysting place before Pyramus, and is chased away by a lion, leaving her cloak, which the lion tears. Pyramus comes, sees the cloak, thinks his sweetheart is killed, and proceeds to stab himself. Thisbe comes back, finds Pyramus dead, and then kills herself; their blood falls on the mulberry tree, and since then that tree has always borne blood-red fruit. The lion escaped.

**THE SAMOAN CONFERENCE.**—What is meant by the Samoan Conference? Will you kindly explain, as the question came up in the history class.

G. P. R.

In May last special envoys, or commissioners, representing the United States, Germany, and Great Britain, assembled at Berlin to consider who should be the ruler of the Samoan islands, what rights each of the powers represented by them should enjoy in those islands; also the claims of each nation.

It was agreed that the rightful king of Samoa, Malietoa, who was deposed and banished a year ago by the Germans, should be restored to his throne. He is to rule by the aid of an advisory council, of which one each will be appointed by the United States, Germany, and Great Britain respectively, one will be appointed by the king himself, and three will be selected by his native subjects.

A land court is to be established on the islands to which foreigners can appeal.

A small indemnity is to be paid to Germany for the killing of German officers and soldiers; the selling of arms or liquors to the natives is forbidden.

The United States has Apia for a coaling station for the navy.

No one of the powers is to exercise any authority in the islands which the others do not have. This means that no great power shall wholly annex Samoa, but that the Samoans shall have a government of their own.

**THE SHAH.**—Has the Shah ever visited Europe before? What of him in general?

S. R. L.

This is the third time Nasr-ed-din, the Shah of Persia, has made the tour of Europe. His first visit was in 1873; his second was in 1878, when he attended the Paris exhibition.

He has visited St. Petersburg, Berlin and Holland, Paris and England. His reign has extended over forty-one years, and has been in many respects an able one. The Shah is a despotic ruler, that is, he can order the immediate execution of any one of his subjects. He can take from any man all his possessions, or make a wealthy noble of a beggar. He is said to be devoted student of geography, ethnology, and the arts; and during his travels he has always kept diaries of the things he has seen. The Shah is a most polished and vigorous prose writer; one of his diaries is used in the University of St. Petersburg as a class-book in the Persian language. Essays of the Shah have been published by the Royal Geographical Society.

In the event of a war between England and Russia in Asia, the attitude of Persia would be of the greatest importance. Without Persian aid or friendship, Russia, in such a war, would be at a great disadvantage. On the other hand, the control of Persia would make a Russian triumph more likely.

## EDUCATIONAL NOTES.

It is an axiom that progress in the world's work is due to *individual labor*. There is no such a thing as wholesale work. We have been reminded of this, by reading the account of the recent exercises of the California state normal school, at San Jose, connected with the resignation of Charles H. Allen as its principal. Seventeen years of his labor in this school ended with an ovation such as few teachers are permitted to receive. His work at San Jose is divided into three periods: the first a year's labor as teacher of the natural sciences; the second when at the expiration of this first year's service he was elected principal of the school; the third, when on the morning of Feb. 10, 1880, he sprang out of bed in time to see his beautiful building in flames. His work in aid of the new building was great; so great that, in addition to his school labors, he now finds himself unfit for public duties. In his letter of resignation, he says: "It is but just to my poor body that has served me so well, that I confess how much it has been taxed by the added duties imposed upon me as these years have gone by. The class-room work, the office work, the duties growing out of membership on the state board, the supervising of the building of the two normal schools—the one here and the one at Los Angeles—and of the third, in part, the making of state text books, all this has been too great a task for *one man*." Mr. Allen can well rest upon his laurels, so well won both in the Great Valley and on the Pacific coast. The world is all the better for such lives as his.

THE length of the school year depends upon the character of the work done. We believe that with a wise course of study, and under proper teachers the school year could be thirty-six weeks. A very poor school might keep its pupils fifty-two weeks, and a very good one but twenty-two. It is what the school does that marks its character.

LET the teacher tell his pupils of the earnestness of Arthur Hatch, of Lewiston, Maine, for knowledge. This boy lost his sight by disease when only two years old. At the South Boston Institute for the Blind, he received a good common school education, and learned the trade of chair-bottoming. But he thirsted for more knowledge, went to the Lewiston Academy, and was graduated with honor, notwithstanding the difficulties. The way he learned his lessons was by having his mother read to him those that were in English, while his fellow-students helped him with Latin and Greek. To study geometry he devised an arrangement of pins and strings. After leaving the academy he worked at his trade a year, in order to earn money to enter Bates College, where he was graduated this summer, carrying off two prizes. What will those having eyes say to this?

AT the La Grange, Ind., county institute, Profs. Boone and Sandison seemed to give unusual satisfaction as conductors. The latter said the teacher of history must learn the operation of government, religion, schools, social life and business, in order to understand it.

THE world has moved in one hundred years. Much of this progress is due to the newspaper. Prof. Simeon E. Baldwin, in an address in Chicago before the National Bar Association recently, said that "modern government could not exist, and could not have existed without the publicity and close scrutiny of public action which the newspaper secures." We are a nation of newspaper readers. In the school-room our future voters should be taught to read the papers judiciously—to read items relating to government, art, science, literature, etc., and to pass by those of a sensational nature.

PUPILS should have the fact often impressed on them that knowledge is power, which they should seek because of the opportunities it will give them of serving others. The educated men and women have always been the safeguard of our country. In the past hundred years the college graduates, including only one-half of one per cent. of the men of the country, held fifty-eight percent. of the offices. Their influence in elevating the standard of government and morals cannot be estimated.

MR. GLADSTONE has shown his educational spirit by making his splendid library at Hawarden practically a free one for those residing in the neighborhood. He wishes to see his belief in the uplifting power of good books shown in the improvement of those about him. His example ought to lead to the establishment of free

libraries in other parts of the kingdom. The library is the natural ally of the public school.

IT is an established fact that diseases such as scarlet fever, diphtheria, measles, and probably typhoid fever, are conveyed from one person to another by means of minute vegetable germs. This naturally leads to the question, to what extent such diseases are spread by school books. The book the child is handling may have been last in the hands of some one convalescent from a dread disease. Those who read books that have been through many hands should not moisten the finger in turning the leaves, as a better opportunity is thereby afforded for the transfer into the body of any germ that may be clinging to the volume.

WE are very sorry to hear the bad news from Cleveland that a city official has absconded with over \$200,000 of the city's money. As a result the board of education commences the year's work with a balance to their credit, of \$1,08.

THE subject of "school savings banks" has been very often presented in this paper. In Olean, N. Y., it has been tried, and in five months 1,000 pupils deposited \$2,300. It increases the interest of pupils and parents in the school, and educates to business habits.

THE Brooklyn course of study in history and geography has been revised. Now the pupils will study such things as the causes which led to the Civil war, instead of learning who threw his cloak on the ground so that Queen Elizabeth could keep her slippers clean. The teachers are much pleased with the change. The method of ranking pupils for promotion also has been changed, for all of which the JOURNAL congratulates the Brooklyn teachers.

VERY few know that there is an association of physicians called the American Pediatric Society, whose purpose is to make a special study of children's diseases. It is meeting to-day in Washington. Its object is important; so important that teachers should inform themselves of its conclusions. It is not at all uncommon for young pupils to be required to study when they are not able to study. Instead of going to school, they need rather to go into the woods. What has been called "getting an education" is by no means so important as getting good morals and health. We are learning many things as years pass on, and in no department of scientific work are we getting more light than concerning the relation of the mind and nerves to the bones, muscles, and other organs of the body.

WHEN distinguished scholars from abroad visit this country, it is the duty of their friends here, to give us an opportunity to become acquainted with them. They come not only to see and hear, but to be seen and to be heard. So it is that we hope Professor A. H. Keane, the celebrated anthropologist of the University College, London, who is in this city, will deliver several addresses on his specialty.

AT the New Jersey Republican Convention, held this week Dr. Nicholas Murray Butler was chairman of the committee on resolutions. Among them we find a demand for the enforcement of the law relating to compulsory education; also the law relating to child labor. Of the latter these words are used:

"We demand its enforcement to prevent children being put to work in early youth, and being broken down in body and untutored in mind before they have sufficient physical development to stand the strain of manual labor." This is excellent. We predict that Dr. Butler will be heard from often, although he is "only a teacher." He is not only a man of alert mind, with well trained powers, but he is one who sees that we *need go forward*; most men that get through college say: "What is there better than setting boys and girls at Latin and Greek?" Dr. Butler looks at things largely; he is almost the only college-bred man who has pronounced himself in favor of manual training, and now pronounces for compulsory education. Look out for this man.

THERE will be arrangements made for an educational exhibit at the North Carolina state fair to be held October 14-17, and full information can be had by addressing L. S. Packard, office of Agricultural Society, Raleigh, N. C.

T. C. Clendenen, of Illinois, says: I have been a constant reader of the SCHOOL JOURNAL for the past three years. It is the best. It is in the front rank on all live questions of interest to educators. I assure you there is one "Egyptian" of the new world that appreciates the worth of your excellent journal. I enclose proceedings of the Southern Illinois Teachers' Association, knowing that all doings of live teachers are of interest to you.

## THE PENNSYLVANIA SUMMER SCHOOL OF METHODS.

This school makes it a point to move from place to place in the state holding two sessions each summer; by this means it rouses teachers everywhere. The state of Pennsylvania must soon feel the impetus given by it to educational affairs, in the rural districts. It is under the direction of Miss Lelia E. Patridge, the well known author of the "Quincy Methods." None that have read this book can doubt the instincts of Miss Patridge as a teacher. Her power as an organizer was exemplified this year by the splendid management of the above named summer school. Young girl teachers in the neighborhood who had never dreamed of viewing their work in any more exalted light than did their employing boards, and had no notion whatever of spending any of their leisure time at a summer school, were induced to do so by older and more earnest teachers, and ended the course as enthusiastic as they had been indifferent at its beginning. At the close of the students, representing the states of New York, New Jersey, Pennsylvania, Delaware, Maryland, and Virginia, gave expression of their feeling toward Miss Patridge in resolutions, in which they said that

1. We heartily appreciate the advantages and privileges, which we have enjoyed during the past three weeks.
2. We are personally indebted to Miss Patridge and her able corps of instructors for the untiring zeal and energy which have characterized their efforts to make this opportunity one of lasting benefit to us. And that, having received fresh inspiration, we shall return to our several fields of labor, better equipped for our work, with renewed enthusiasm, and with keener recognition of the dignity and responsibility of our profession.

August 23, 1889. A. A. PHILLIPS.

## SOUTHERN ILLINOIS TEACHERS' ASSOCIATION.

This met at Cairo, Ill., August 27, and was a live affair. Mrs. Clara B. Way, of Nashville, read a paper on "The Child." The keynote was, "Make me an angel, O sculptor, I pray thee!" and she discussed the importance of the teacher's mission from this point.

Miss Clara B. Stephenson followed with "School Training versus Street Training," and contrasted the two very powerfully, showing how the school gives power and character.

G. W. Smith spoke well on the need of "Cheerfulness in the School-Room."

J. H. Lane spoke on the "Ideal Teacher."

J. Henniger spoke of the "Five Factors"—the family, the library, the school, the church, and society.

Dr. Allyn, of the Carbondale normal school, gave a good lecture on the "Correlation of History and Literature."

This meeting showed the teachers of Southern Illinois, "the Egypt" of the state, to be on the alert for progress.

The number in attendance was 200; 140 paid dues. T. C. Clendenen, of Cairo, an earnest and progressive teacher, was elected president.

R. L.

The classes of Advanced Instruction for Women will open October 1, 1889. The object of these classes is to promote higher education among women by making it possible for those who are unable to attend any college to obtain advanced instruction from competent tutors at reasonable rates. For further information address Miss Edith Rice, Secretary, 122 West 10th street, N. Y.

Oklahoma City is to have a graded school, and it is to be established by Prof. F. H. Umholtz.

In a Canada school, it is said a pupil had read the lines "Call me early, call me early mother dear," and the teacher asked, why did she come to ask her mother to call her early? The response was, "Because, ma'am, that was her name." And this story is told of Alfred Tennyson by Mr. Henry Sedgwick. The poet was reading the poem "Maud" to a company, and when he got to the birds in the garden calling, "Maud, Maud, Maud, Maud!" he stopped short and asked an authoress present what birds these were. The authoress was greatly taken aback, and feeling she must speak faltered out, "Nightingales, sir. 'Pooh!'" said Tennyson, "what a cockney you are! Nightingales didn't say Maud; rooks do say something like it; they say, 'Caw, caw, caw, caw.'" Then he went on reading.

WITH this issue we send a bill to every subscriber whose subscription is now due. It is hoped that a prompt response will be made. If you cannot remit at once, at least write us a card saying when you will remit. We are doing our utmost to make the JOURNAL a right hand of help to every subscriber. Let all who owe us consider their duty to us. If any errors are discovered we shall be glad to rectify them promptly.

THE NEW YORK EDUCATIONAL BUREAU finds skilful teachers are more in demand this year than ever before. This bureau makes a specialty of supplying teachers of high grade. Those who are seeking first-class situations, and those who are seeking first-class teachers, should address at once with stamp, HERBERT S. KELLOGG, 25 Clinton Place, New York City. It may lead to something very promising.

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## VOCABULARY MAKING.

By SUPT. J. M. GREENWOOD, Kansas City, Mo.

The *misfits* in education are mostly those of wadded ignorance. The child enters school stuffed full of words, ideas, and images. He can use his information to round out, and to round up what he knows. With eyes and ears both open, and an active mind, his real business is to pick up all sorts of odds and ends of knowledge. To suppose that vocabulary making is the chief activity of childhood, is only one side of the truth as it appears to me. At first, the child learns words from imitation combined with practice. He knows the words from sound, and not by sight. By hearing them applied to things by other persons, he learns how to use them himself, and from the manner in which many of them are uttered, he catches their meaning.

The meaning of some he guesses at, just as older and larger people are in the habit of doing. Any one, who will watch children carefully, can prove the truthfulness of what is here stated, if he has any doubts upon the subject.

A child of average opportunities at the age of six, when he first enters school, will have a vocabulary at his immediate command of from 800 words to 2,500 words. Besides, there have been no tables prepared showing the number of words the average child knows, but does not use. Last year, I published the vocabularies of five different children. The youngest at the age of fifteen months used 60 words, nearly all nouns; and when two years old her total list was 500 words. Another child at seventeen months used 80 words; another at thirty months, 1,050 words; a little boy at three years and nine months 1000, not including all the proper names he knew; while the fifth, at the age of five, used in conversation more than 1,500 different words in two weeks.

These records were carefully and accurately made. Any one can make his own experiments if he is willing to take the time.

To take advantage of what the child already has, and to teach him how to use it rightly, is the chief part of all teaching.

School work should supplement the home work.

When a child starts to school, he should be given a chance to spread himself. All the hampering and coddling processes in reading, composition, numbers, etc., must go! A hungry child goes to the table to eat, not to be tantalized; he goes to school to learn, and he needs knowledge in good sized chunks at times, if his intellectual stomach is empty, active, and vigorous.

I have no patience with so much of the "little-pill-practice" in educational work.

Last week, I was walking with a youngster of four summers, and he said: "It is sundown, and it will soon be dark." I replied, "Yes;" Then he said, "Where does the sun go when it is dark?" I said, "Behind the earth." Then he asked: "Where is the behind of the earth?" Before I could reply to his last question, he said: "Dark is made by the sky's coming down to the ground, I think."

I tried him the next evening on arithmetic. He could count on his thumbs and fingers to ten. I asked, "What makes ten?" Promptly, he replied, "Two fives." Next, "What makes eight?" Again, came the answer, "Two fours." Now what is the half of eight? To this he responded instantly, "Four." Again he said without hesitation, "The half of four is two." And to my query, "What is the half of two?" "One," was his reply. Lastly, I asked him, "What is the half of one?" He said: "It is one cut in two in the middle."

Yet, there are numb-skulls that would keep this little fellow when he is a year or two older, five or ten months on numbers from one to ten. So, also, children are kept writing, and spelling, and reading little short words that they already know, which, when once learned, are learned for all time. This narrowing process brings the child's horizon too near. Instead of a stationary horizon, it should be continually enlarging.

Gathering in new words, and using them to express ideas, and thinking out which words to select, that will express the ideas to the best advantage, is the most important part of language-culture, so far as the actual work in school is concerned. However, it is not my intention to discuss the language hobby now.

Teacher—"Now, children, give close attention: I will give you three words—boys, bees, and bears; and I want you to compose a sentence which will include all three words." Small Boy—"I have it." Teacher—"John McCarthy, you may give us your sentence." John McCarthy—"Boys bees bare whin they goes in swimmin'."

## BOOK DEPARTMENT.

## NEW BOOKS.

THE LIGHT OF HER COUNTEANCE. By Hjalmer Hjorth Boysen. New York: D. Appleton & Co. (Appleton's Town and Country Library.) 75 cents.

The present story is a reconstruction of some scenes and characters which appeared in a novelette published anonymously by the author in *Lippincott's Magazine* a year ago. He suggests in a prefatory note that although a family resemblance may be recognizable, the differences between the two stories seem more marked than their similarities. The story is an interesting one, and will find many appreciative readers. It is a story of American manners, politics, and character from the stand-point of a foreigner, who has become, to a large extent, Americanized, and yet has not come to look upon our institutions and peculiarities with the indifference of life-long familiarity. More than this, it is a love story with engaging incidents and situations. It is printed and published in most attractive style.

THE PUBLISHERS' TRADE LIST ANNUAL, 1889. The Latest Catalogues of American Book Publishers; Preceded by a Complete List—by Authors, Titles, and Subjects,—of Books Recorded in *The Publishers' Weekly* from January to June, 1889; and by the *American Educational Catalogue* for 1889. New York: Office of *The Publishers' Weekly*.

This publication, now in its seventeenth year, maintains its appearance of brisk enterprise and thorough assimilation of the crowded book-life of the times. It is an indispensable record, as it has always been, to every publisher and book-buyer. Its make-up is as attractive, within and without, as its contents is invaluable.

JACQUES BONHOMME AND JOHN BULL ON THE CONTINENT. By Max O'Rell. New York: Cassell & Co., Limited. Paper, 50 cents.

How could this book be other than entertaining and instructive? Long ago the author of "John Bull and His Island," and later of "Jonathan and His Continent," earned the distinction of being both a wise and a witty foreigner, who added to these gifts the most unusual insight and impartiality in his view of native eccentricities in any country where he might happen to be. Of course the American reader comes to this book prejudiced toward the largest confidence in all its statements and its inferences; and the expectation certainly seems justified. No fair-minded American can fail to conceive a kindlier liking for "Jack Goodfellow," and his wife, as they are pictured here, with just the coloring perhaps of commendable patriotic pride, yet surely not exaggerated, and rendering plain as print the numerous little foibles of the French people. We are shown the French at school, at war, in leading-strings, in love, at work, at play, and at table, in trouble, in England; and the French and their critics. The scope of the book is enlarged by three papers on "A Frenchman, yet not a Frenchman," "John Bull on the Continent," and "From my Letter-Box."

ELENE. An Old English Poem. Edited with Introduction, Latin Original, Notes, and Complete Glossary. By Charles W. Kent, M.A., Ph.D. Boston and London. Published by Ginn & Co. 149 pp. 65 cents.

This poem in Old English, is found in the Vercelli book, in folios 121-138 and is complete. The first question that arises is, of course, who is the author? There is no doubt in the minds of these scholars who have made the subject a study, that it is Cynewulf. Much has been written, but really little is known about him. It is generally agreed, though, that he lived in the eighth century. He says that this work of his was the joint result of his reading and reflection, that the material was collected, and that its present shape cost him much thought. To any who can master the Old English, this poem will be of great interest,—to those who cannot read Old English, it is as indecipherable as Greek or Hebrew.

THE POEMS OF WALTER SAVAGE LANDOR. Selected and edited by Ernest Radford. London: Walter Scott, 24 Warwick lane.

This is one of a series of "The Canterbury Poets," bound tastefully in cloth, with a pretty stamp in black and gold, in handy little volumes measuring 5 1-3 by 4 1-4 inches. Just the size to easily fulfil the condition of—wasn't it Dr. Johnson who said a book ought to be just large enough to carry, and hold conveniently at the fire-side? The contents includes the dramatic poems, Gebir and Count Julian, Miscellaneous Poems, The Hellenes, The Last Fruit of an Old Tree, Dry Sticks Fagoted, and Heroic Idylls. Landor is not, in the nature of things, a popular poet, but appeals rather to scholars and to those of his own craft, literary workmen. There is an air of studied choice in his lines, which bespeaks the polished essayist rather than the singer; and commands the respect of students, while it awakens no admiration in the popular heart. Yet Landor should be read, or at least looked into, by those who desire a reading acquaintance with the recognized masters of English diction.

RELIGION AND SCIENCE AS ALLIES OR, SIMILARITIES OF PHYSICAL AND RELIGIOUS KNOWLEDGE. By James Thompson Bixby. Chicago: Charles H. Kerr & Co., 175 Dearborn street. Paper, 30 cents.

This is a book of more than two hundred pages of clear, large type on good paper. Its line of argument, proceeding from a statement of the present antagonism of science and religion, deplores the hurtfulness of such antagonism; urges the need of reconciliation and proposes a method of effecting this, which constitutes the object of the book. In pursuit of this object the author contends that there is no necessary and rightful antagonism between religion and science, when rightly understood, and that the cause of the actual opposition in these camps is ignorance of themselves and of each other; science being confounded with metaphysics and speculations; and religion with ecclesiastical organizations and theological systems. The author considers, in turn, the claims of religion and of science, each to the possession of exclusive information and consequently a rightful sovereignty of knowledge, and concludes that each is needed to correct and modify the other. He also discusses the supposed difference between the aims and results of religion and those of science concluding that here also there is a real unity of purpose beneath the apparent divergence, and that science

and religion, rightly interpreted, are fellow-laborers in the divine service. The author's spirit is kindly and moderate; and his incidental investigation into the minutiae of some experiments in chemistry and physics are very interesting.

LESSONS IN LANGUAGE. Compiled Under the Direction of the State Board of Education. Sacramento, California. Printed at the State Printing Office. 158 pp.

The study of language by means of conversational lessons should be the first school work. "Teach the children to talk to you," is one of the wise sayings of this little volume. Do not impart knowledge, but simply have the young pupils tell what they already know. In arrangement, these exercises begin with the simple statement, passing on to the question, and so on to the more difficult parts of language work. Oral and written exercises are given in connection with lively illustrations, which make the work of young pupils much more captivating. The book, all through, does not differ materially from many others upon the same subject, but as one of a series it will be found indispensable. We predict for it a good many friends among teachers of children.

HAND-BOOK OF INFORMATION. Concerning the School of Biology of the University of Pennsylvania, Philadelphia, 1889.

This is a large book in paper covers, and printed in very large, clear type on heavy paper, with a number of fine "process" engravings, showing interior views of the different rooms in the school. The book gives an outline of the history of the university from the very beginning; with an account of its departments, trustees and officers, and an outline of the courses of study in the different classes. The book is gotten up in the best style and gives full information.

## ANNOUNCEMENTS.

D. APPLETON & CO. will have ready this fall Youmans' "Class Book of Chemistry," which is being revised by Dr. W. J. Youmans. One of their recent publications is, "A First book in American History," by Edward Eggleston.

WHITE & ALLEN, of New York and London, have just issued their catalogue of new publications for 1889, and announce that the illustrating of their books in a worthy manner has been a subject of special attention with them.

H. J. RUETENIK, 1430 Pearl street, Cleveland, Ohio, has published a new German Grammar.

ROBERTS' BROTHERS announce the following books: "French and English," a comparison, by Philip Gilbert Hamerton; "Jane Austen," by Mrs. Maiden (famous women series).

MRS. BURNETT's love story, "Vagabondia," is reported by book-sellers to be the best-selling and most called-for book this summer. It was issued by Charles Scribner's Sons.

LKE & SHEPARD, Boston, will soon issue the second of Oliver Optic's stories in "The Blue and the Gray" series under the suggestive title, "Within the Enemy's Lines." It is uniform with "Taken by the Enemy."

A. C. MCCLURG & CO., Chicago, will publish "Familiar Talks on Astronomy, Geogaphy, and Navigation," by Captain W. H. Parker, a veteran teacher and navigator.

Among G. P. PUTNAM'S Sons' announcements are: "The Letters of Horace Walpole," edited, with introduction and notes, by Charles D. Yonge; "The Best Books," a reader's guide to the choice of the best available books in all departments of literature down to 1888; "The Story of Boston," by Arthur Gilman.

## MAGAZINES.

The publishers of St. Nicholas announce that the magazine will be enlarged in November, and that new and clearer type will be adopted.

One of the most important features of the coming volume of the Century will be an illustrated series of articles on the French salons of the seventeenth and eighteenth centuries. Sketches will be given of many historical and literary characters.

In the September *Wide Awake* Mrs. White's "Public School Cookery" concerns fish and eggs. There is some bright reading in the same number, under the title, "Maria Mitchell at Vassar."

The electrical articles in *Scribner's Magazine* which began in the June number are attracting full as much attention as the railway series. The publishers of the magazine have prepared a series of questions about electrical matters, the idea being the same as in the railroad questions, and have issued them in a neat little pamphlet along with other information that will be of use in the schools.

Elaine Goodale who, some years ago, became known as a writer of verse of remarkable merit, tells in the October *Chautauquan* about her experience at the Lower Brule agency as teacher. She led to the conclusion that the day-school system "is far better fitted than any other system by means of its economy, general applicability, and wide-spread influence to give to every Indian child what we owe him—the elements of an English education."

Harper's for October describes a queer sect—German Baptists called Dunkers, or Tunkers—located in the quaint town of Ephrata, Pa. As a study of one phase of American life, the article is worth reading. It is fully illustrated.

The *Popular Science Monthly* for September has a paper which will interest those studying zoology. It gives a fine, graphic description of animal life in the Gulf stream.

The September *Atlantic* has an article by Stuart F. Wild on that gigantic enterprise of De Lesseps, the Panama canal, under the heading, "The Isthmus Canal and American Control." The Panama canal has thus far proved one of the costliest failures the world has ever known. Mr. Wild's article will be read with keenest interest.

*Old New York*, A Journal Relating to the History and Antiquities of New York City, published by W. W. Pasko, 19 Park place, presents in its August number some Notes on Printing in New York; An Englishman's View; Index to Engravings in Valentine's Manual; Extracts from Early Newspapers. The Introduction of Methodism; Diary of Dr. Alexander Anderson, and the Claims of Nicholas Jones. The magazine contains much matter of special interest to antiquarians. The price is fifty cents a number, five dollars a year.

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Editorial cartoon of a woman holding a bottle of Ayer's Hair Vigor.

"Now children," said the teacher to the infant natural history class, after the peculiarities of the crab had been discussed, "is there any other member of the animal kingdom that possesses the power of moving rapidly backward?"

"Yeth, thir," said a little fellow, in all seriousness, "the mule kin."

"Mamma," said little Harold, as he stood by the window one day, "there goes Mrs. Smif wiv an umbersol over his head and his rubber gothamar, and it isn't waning. Isn't he a funny woman? I think she is."

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Recently Mrs. Trowbridge called to see Mrs. James, and not finding her at home, said to her child, who is three years old:

"I have no cards with me; do you think you can remember my name and tell your mamma that Mrs. Trowbridge called to see her?"

The child looked her full in the face and replied:

"There are so many things in the world I want to remember and can't, I don't think I shall try to remember a thing that I don't want to."

A little fellow wanted his mamma to make him a night-shirt "just like papa's," with a pocket in it. His mother made him one, and the first night he wore it, he went to bed in high glee.

In the morning, when his mother took the robe off, she found in the pocket a couple of seed cakes, three matches, a toothpick, a small silver watch, several pieces of cough candy, and the boy's pocket handkerchief. When the little fellow was questioned as to the reason of the very varied assortment, he replied:

"Well, I thought if I got hungry in the night time I would need the seed cakes, and, of course, I'd want the toothpick afterward; if I wanted to see what time it was by my watch I would have to have a match, and I was afraid of coughing, so I put the candy there."

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A doctor happened to be telling his family of an amusing scene he had witnessed at a patient's house during the day. "Mr. Brown," said the doctor, "was not seriously ill, but his wife really made matters worse and herself supremely ridiculous by rushing in and out like a wet hen." The doctor's son, Bob, a very bright boy of six, was present when his father said this, and treasured his words. A day or two afterwards Mrs. Brown called on the doctor's family, and when Bob came into the room he sat down on a stool and fixed his eyes on the visitor. By and by he asked very seriously, "Mrs. Brown, do you know anything about a wet hen?" Of course she replied in the negative, and Bob's face assumed a very puzzled expression. After a brief pause—horrible to his sisters—Bob said: "Well, it seems to me you ought to."

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